CET2793C Administering Windows Server Course Syllabus FALL 2023

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Division of Engineering, Computer Programming, and Technology <u>Department of Cybersecurity and Network Engineering Technology</u>

West Campus Building 9, Room 140 | (407) 582-1902/1903 West Campus Building 11, Classrooms 261, 262, and 264



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CET2793C Install and Configure Windows Server (3 Credits) FALL 2023

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1. Course Information

This course will provide the student with the knowledge and practical experience to perform task needed for day-to-day operations. Main topics include; managing account policies, administering Active Directory objects, managing and controlling resources, implementing group policies for security, and maximizing performance and responsiveness.

Prerequisites

CET 2792C or department approval

Class Time and Location

Online. We will be using Microsoft Teams and Zoom for class communication.

Class Communication (TEAMs and ZOOM)

Learning Outcomes

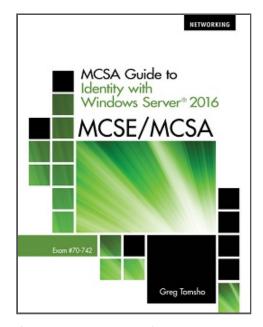
- Introduction to Active Directory
- · Managing Organizational Units and Accounts
- User and Service Account Configuration
- Configuring Group Policies
- Managing Group Policies
- Domain Controller and Active Directory Management
- Advanced Active Directory Configuration
- Active Directory Certificate Services
- Implementing Identity Solutions

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2. Course Materials and Resources

This section outlines the course materials you will need for this class. Materials can include software, hardware, and textbooks. Make sure to double-check the information listed in this section so that you get everything you need to be successful in this class.

Textbook Information



Course Materials Information

MCSA Guide to Identity with Windows Server 2016, MCSE/MCSA, Exam # 70-742

Author: Greg Tomsho

ISBN-13: 978-1337400893

Publisher: Cengage Learning

Please Note

the eTextbook from Cengage will be linked throughout the course for ease of access. You will need a subscription to either Cengage Unlimited or Cengage Unlimited eTexbook in order to access the linked chapters. Please purchase the code through the bookstore.

Hardware Requirements

Minimum Hardware Recommended for the CYNET Program: Windows 10 PC/Laptop with at least 16 GB RAM; i5 or better processor; and a headset. MAC computers are NOT supported for this class.

Please Note

Any support provided for hardware/software outside of the requirements is done on a best-effortonly basis. You are responsible for your equipment meeting requirements. Please ask your instructor or the lab team if you have any questions.

Required Software

- Microsoft Office
- VMWare Workstation 16
- Microsoft Visio
- TEAMs (Web App --or-- Desktop App)

Please Note

we will go through some software installation the first few weeks of class. So, if you do not have one or more of the required pieces of software, do not panic. We will get to it during the first few weeks.

Optional Course Materials

Items in this section are optional and are not required for this class.

- External Hard Drive (Minimum Recommended size is: 500GB)
- Mastering Active Directory: Understand the Core Functionalities of Active Directory Services Using Microsoft Server 2016 and PowerShell

by Dishan Francis ISBN: 978-1787289352

Learn Active Directory Management in a Month of Lunches 1st Edition

by Richard Siddaway ISBN: 978-1617291197

Links

- VMWare Software (BrightSpace):
 - VMWare license key page
 - Download VMWare Workstation for Windows
 - Download VMWare Workstation for Linux
 - Download VMWare Fusion for MacIntosh
 - Download VMWare vSphere 6.7 Enterprise Plus
- Microsoft Azure for Teaching: https://signup.azure.com/studentverification?offerType=3
- ISO (Images) Link: One Drive Link □

Library Resources

Additional resources for the engineering program can be found at: http://libguides.valenciacollege.edu/engineering

Open Lab/Tutoring

https://valenciacollege.edu/academics/departments/engineering/lab-hours.php

Learning Support Statement

Learning Support Services provides students with academic support through distance tutoring, face to face tutoring at the campuses, writing consultations, library services, and resources. Tutoring is offered in most academic disciplines including math, science, foreign languages, English for academic purposes (EAP), computer programming and writing assistance for any course. Assistance with library research can be accessed online through Atlas or the tutoring LibGuide. For more information on how to access tutoring and library research assistance, please visit the college-wide Learning Support Services LibGuide at: https://libguides.valenciacollege.edu/distancetutoring

Please Note

Brainfuse is our new 24/7 online tutoring and learning hub, which is available to all of Valencia's students. This service is best used as a back-up to Valencia's Distance Tutoring service, not as a replacement. Brainfuse is accessible through Canvas or by visiting https://valenciacollege.edu/students/learning-support/

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3. Professor Information

Dr. Gerri Roberts, Professor, Cybersecurity and Network Engineering Technology, West Campus



Faculty FrontDoor: https://frontdoor.valenciacollege.edu/faculty.cfm?uid=groberts21

Contact Information

My contact information is listed in this section.

Contact Information

Method of Contact	Contact Information
Office Location:	West Campus, 11-253
Email Address:	groberts21@valenciacollege.edu
Office Phone:	407-582-5854
Appointment Link:	Schedule online
TEAMs Link:	Teams Link
ZOOM Link:	ZOOM Link

Office Hours

My office hours are listed in this section, along with how to make an appointment with me.

Office Hours

Day of the Week	Time Available
Monday	12 PM to 3 PM EST
Tuesday	3 PM to 4 PM EST
Wednesday	12 PM to 3 PM EST
Thursday	12 PM to 3 PM EST
Friday	12 PM to 2 PM EST

Appointments:

Make an appointment with me using Microsoft Bookings

at: https://outlook.office365.com/owa/calendar/InstructorMeeting@valenciacollege.edu/bookings/

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4. Grading Information

Please Note

Due dates are not provided on the syllabus as they vary from week to week depending on the activities of that week. The <u>Course Summary</u> after the syllabus content provides a break down of the due dates and assignments that are due (as well as includes reading and video lessons). Please double-check all due dates each week to ensure that you are turning in assignments on time. Late assignments will not be accepted unless previous arrangements have been made. Assignments may lock after the due date and you may not be able to turn in assignments after the due date (see the Grading Policy for further information about due dates and late credit).

Please Note

the provided schedule is tentative and can change. Please pay attention to communication from your professor as if the schedule changes, your professor will let you know. Schedule changes can occur due to issues such as hurricanes and school closures.

Assignment Schedule			
Week	Dates	Activities	
1	08/21/2023 to 08/27/2023	 Chapter 0: Introductions and Course Setup Classroom Setup: Step 1: Downloading and Installing VMWare Workstation Classroom Setup: Step 2: Downloading and Saving the Image(s) Classroom Setup: Downloading and Installing Visio Classroom Setup: Downloading and Installing TEAMs 	
2	08/28/2023 to 09/03/2023	 Classroom Setup: Step 3: Using VMWare to Make your Virtual Machines, Part I Classroom Setup: Step 4: License Your VMWare Through BrightSpace Chapter 1: Introducing Active Directory 	
3	09/04/2023 to 09/10/2023	 Classroom Setup: Step 3: Using VMWare to Make your Virtual Machines, Part II Chapter 2: Managing OUs and Active Directory Accounts 	
4	09/11/2023 to 09/17/2023	 Chapter 3: User and Service Account Configuration Classroom Project: Network Diagram 	
5	09/18/2023 to 09/24/2023	 Chapter 4: Configuring Group Policies Classroom Project: ADDS Diagram 	
6	09/25/2023 to 10/01/2023	 Chapter 5: Managing Group Policies Classroom Project: ADDS Server 	
7	10/02/2023 to 10/08/2023	MIDTERM EXAMS	
8	10/09/2023 to 10/15/2023	 MIDTERM EXAMS Classroom Project: Practice Project Outline Classroom Project: Practice Project Build 	
9	10/16/2023 to 10/22/2023	 Chapter 6: Domain Controller and Active Directory Management Classroom Project: File Server 	
10	10/23/2023 to 10/29/2023	 Chapter 7: Configuring Advanced Active Directory Classroom Project: GPOs and Testing 	
11	10/30/2023 to 11/05/2023	 Chapter 8: Implementing Active Directory Certificate Services Classroom Project: Additional Testing 	
12	11/06/2023 to 11/12/2023	Chapter 9: Implementing Identity Solutions	
13	11/13/2023 to 11/19/2023	Classroom Project: Completed Classroom Project Documentation	
14	11/20/2023 to 11/26/2023	Thanksgiving 11/22/2023 to 11/26/2023	
		Enjoy your Thanksgiving holiday break!	

15	11/27/2023 to 12/03/2023	FINALS WEEK	
16	12/04/2023 to 12/10/2023	FINALS WEEK • Final Hands-On Project	
	12/08/2023	CUTOFF DATE	
*** Cutoff date is 12/08/2023 @ 9:00 PM EST. Any work after this will not be accepted. ***			

Assignment Percentages

The following section outlines assignment percentages based on assignment type.

Lab Assignments

30%

Classroom Setup

10%

Classroom Project

35%

Final Hands-On Project

25%

Lab Assignments:

 Lab Assignments are labs that are based on the book. These labs will vary from lesson to lesson - but often, there are multiple activities in each lab.

Classroom Setup:

 These assignments help the student set up their lab environment and other items they need for the class. Usually done during the first and second weeks.

• Classroom Project:

• Each server class has a classroom project. This project is a guided project that will help students understand how servers work together to accomplish tasks on a network.

• Final Hands-On Project:

 Each server class has a Final Hands-On project. This project is an individual project that will challenge students to put their knowledge from the Classroom Project and the Lab Assignments to the test.

Letter Grade/Percentage Conversion

Letter Grade/Percentage Conversion

Letter Grade	Percentage
A	90%-100%
В	80%-89%
С	70%-79%
D	60%-69%

Letter Grade	Percentage
F	Below 60%

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5. Policies and Procedures

Office of Policy and General Council: https://valenciacollege.edu/about/general-counsel/ &

Campus Security: https://valenciacollege.edu/students/security/ ₽

Quality Expectations, Late Work, Missed Deadlines Policy

As students in the Cybersecurity & Network Engineering Technology program, you are all future networking or security professionals, and your work in this course is a direct reflection of you as a professional. To ensure that you are prepared for success in your field, the following policies are in place:

- 1. **Quality Expectations:** Quality work is essential in this course. Your assignments should demonstrate a strong understanding of the material, attention to detail, and critical thinking skills. Clear and concise communication is also important, as well as proper use of tools and techniques relevant to the course material.
- 2. Late Work: I understand that real-life circumstances may interfere with your ability to submit assignments on time. Therefore, one late assignment will be accepted with a 50% deduction in points. However, any late assignment after the first one will not be accepted for grading. Failure to upload an assignment correctly is considered the same as being late. Please note that midterm and final exams cannot be submitted late.
- 3. **Missed Deadlines:** I expect all assignments to be submitted on time. Failure to submit an assignment by the deadline will result in a grade of zero for that assignment. Exceptions to this policy will be considered on a case-by-case basis, and only under exceptional circumstances.
- 4. **Extra Credit:** There is no extra credit anticipated in this course. All assignments are designed to ensure that you thoroughly understand the course material and are prepared for success in your field.

By adhering to these policies, you will be able to produce high-quality work, meet deadlines, and demonstrate your preparedness for success as a networking or security professional.

Class Policies

- Any student who misses 2 assignments/classes in a row will be dropped by the instructor UNLESS prior arrangements are made OR if there are extenuating circumstances
- No make-up assignments or exams will be allowed UNLESS prior arrangements are made
- Cheating or any act of academic dishonesty is prohibited. For any student caught cheating, the instructor has the right to withdraw the student from the class or provide a failing grade
- Any cheating or blatantly copied work will result in a 0
- It is your responsibility to withdraw from the class please do so before the deadline, or a withdrawal may result in a WF, or it may not be granted by the school
- Please keep track of your grades I will be grading and posting grades the days following the assignment due date – if you are missing grades, please let me know immediately
- Please ask questions if you need assistance
- Due to FERPA regulations, grades cannot be discussed over email and phone unless you are notifying me of a missing grade or an incorrectly entered grade
- Disruptive Behavior: Any student engaging in disruptive behavior will be advised on the first offense and will be dropped from the course on the second offense.

Assignment Policy

- Assignments open the Friday before the assignment week
- Assignments will be closed after the due date and will remain closed
- Assignments are to be turned in on time to qualify for full credit
- Any assignment that is late or missing will be given an automatic 0
- Failure to complete the Midterm Examination, the Final Project, and/or the Final Exam will result in an automatic F
- One exception may be made on a case-by-case basis per student for late work. This exception will receive a 50% deduction for being late.
- It is your responsibility to contact the instructor if any extenuating circumstances arise

Netiquette

From "Internet Netiquette":

"Netiquette" refers to the standards for appropriate interaction in an online environment. Students are expected to display proper netiquette in their communications with their instructor and with other students. This includes being polite, disagreeing agreeably when necessary, including your name and other necessary identifiers on any communication, and practicing collegiality and mutual respect. We're not here to troll or flame, but to learn and be in a community. If an email or discussion post ever concerns you, please notify me privately and we'll work towards a resolution.

Academic Integrity

From the official school policy (https://valenciacollege.edu/students/disputes/academic-integrity.php $\ ^{\square}$):

"All forms of academic dishonesty are prohibited at Valencia College. Academic dishonesty includes, but is not limited to, acts or attempted acts of plagiarism, cheating, furnishing false information, forgery, alteration or misuse of documents, misconduct during a testing situation, facilitating academic dishonesty, and misuse of identification with intent to defraud or deceive.

Students may be subject to both the Student Code of Conduct and academic sanctions as determined in the academic judgment of the professor in cases where there is a combination of alleged violations of academic and non-academic regulations.

Any student determined by the professor to have been responsible for engaging in an act of academic dishonesty shall be subject to a range of academic penalties (apart from any sanctions that may be imposed pursuant to the Code) as determined by the professor which may include, but not be limited to, one or more of the following: loss of credit for an assignment, examination, or project; a reduction in the course grade; or a grade of "F" in the course."

Student Core Competencies

The faculty of Valencia College has established four Core Competencies that describe the learning outcomes for a Valencia graduate. They are: THINK, VALUE, COMMUNICATE, and ACT. These general competencies can be applied in many contexts and must be developed over a lifetime. They specify how learning can be expressed and assessed in practice. They enable students and faculty to set learning goals and assess learning within and across the many disciplines of human inquiry. Use the descriptions and examples of academic work for each to measure your own learning outcomes. Samples of the academic work are great additions to your Learning Portfolio. For further information on student core competencies please go to https://valenciacollege.edu/academics/competencies/

Expected Student Conduct

Valencia College is dedicated not only to the advancement of knowledge and learning but is concerned with the development of responsible personal and social conduct. By enrolling at Valencia College, a student assumes the responsibility for becoming familiar with and abiding by the general rules of conduct. The primary responsibility for managing the classroom environment rests with the faculty. Students who engage in any prohibited or unlawful acts that result in the disruption of a class may be directed by the faculty member to leave the class. Violation of any classroom or Valencia's rules may lead to disciplinary action up to and including expulsion from Valencia. Disciplinary action could include being withdrawn from the class, disciplinary warning, probation, suspension, expulsion, or other appropriate and authorized actions. You will find the Student Code of Conduct in the current Valencia Student Handbook or

at: https://catalog.valenciacollege.edu/academicpoliciesprocedures/studentcodeofconduct/

Students with Disabilities

Students who qualify for academic accommodations must provide a letter from the Office for Students with Disabilities (OSD) and discuss specific needs with the professor, preferably during the first two weeks of class. The Office for Students with Disabilities determines accommodations based on appropriate documentation of disabilities (West Campus SSB 102, ext. 1523).

OSD: https://valenciacollege.edu/students/office-for-students-with-disabilities/

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6. Important Dates

The following section outlines important semester dates.

Academic Calendar: https://valenciacollege.edu/academics/calendar/

Important Dates

Date	Event
08/21/2023	First Day Fall 2023 Full Term
08/28/2023	Drop/Refund Deadline
08/30/2023 to 09/08/2023	No Show Reporting Period
09/04/2023	Labor Day (Campus Closed)
10/27/2023	Withdrawal Deadline
11/10/2023	Veterans Day (Observed) (Campus Closed)
11/22/2023 to 11/26/2023	Thanksgiving Holiday (Campus Closed)
12/04/2023 to 12/10/2023	Finals Week
12/08/2023	Last Day to turn in work in this class
12/10/2023	Last Day in the Term
12/12/2023	Grades Posted in Atlas
01/08/2023	Spring 2024 Term Begins

7. Conflict Resolution

While Conflicts are rare, they do happen. Please try to reach out to your professor first. If this does not work or you are in fear of retaliation, you should contact the Department Chair. For our department, that is Joan Alexander (jalexander@valenciacollege.edu). If this does not correct the issue, or if you have further questions, you may contact an Ombudsman or your Academic Advisor for assistance (Academic Advising: https://valenciacollege.edu/students/student-services/ (Academic Advising: https://valenciacollege.edu/students/student-services/ (Academic Advising)

The following section outlines information about the Ombudsman program.

Student Academic Dispute

Valencia College offers students the opportunity to express concerns privately with an Ombudsman. An Ombudsman provides a safe and comfortable environment for students to discuss complaints, concerns or problems privately. When appropriate, the office will initiate an informal intervention with the goal of facilitating a resolution that is acceptable to all parties involved. The ombudsman acts as an independent, impartial resource. If a matter cannot be resolved through this office, a referral will be made. When appropriate, the office can make recommendations regarding policy review and change.

Student Administrative Complaint Resolution

Valencia front line learning leaders are a resource for students seeking assistance in resolving issues with non-academic matters. Click here for a complete list of college-wide leaders who can assist with designated issues. Students may follow the progression of staff assistance in an administrative area, starting with the first response level, to bring resolution to the issue.

Student Code of Conduct

Once a complaint is filed, the Dean of Students or designee will review the complaint and consult with relevant parties regarding the incident. The Dean of Students or designee will then follow-up with the Student Conduct Review Process as outlined in the Student Code of Conduct.

Resources

- Website: Student Dispute Resolution
- Website: Ombudsman Program
- Website: https://catalog.valenciacollege.edu/academicpoliciesprocedures/studentcodeofconduct/

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8. Tips for Success

Here are some tips for success in an online college class:

- 1. Set up a designated study space: Creating a dedicated study space can help you focus and stay organized. Make sure the space is comfortable, quiet, and free from distractions.
- 2. Create a schedule: Make a schedule that includes specific times for studying, attending online lectures, and completing assignments. Stick to the schedule as much as possible.

- 3. Actively participate in class: Participate in online discussions, ask questions, and engage with your classmates and professors. This can help you stay engaged and motivated throughout the course.
- 4. Stay organized: Keep track of important deadlines and assignments by using a planner or digital calendar. This can help you stay on top of your work and avoid last-minute stress.
- 5. Communicate with your professor: If you have questions or concerns, don't hesitate to reach out to your professor. They can provide guidance and support to help you succeed in the class.
- 6. Take breaks: It's important to take breaks and give yourself time to recharge. Make sure to take breaks throughout the day and take care of your mental and physical health.
- 7. Manage your time effectively: Online classes can be flexible, but it's important to manage your time effectively. Avoid procrastination and make sure to prioritize your assignments and studying.

By following these tips, you can set yourself up for success in an online college class.

Here are some time management resources/methods to help you with your class(es):

- Time Chunking: https://www.ninety.io/blog/time-chunking
- Pomodoro Method: https://www.techtarget.com/whatis/definition/pomodoro-technique
- Eisenhower Matrix: https://asana.com/resources/eisenhower-matrix
- Time Management Strategies: https://www.upwork.com/resources/time-management-strategies:

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Course Summary:

Date	Details	Due
Tue Aug 29, 2023	Classroom Setup: Downloading and Installing TEAMs	due by 9pm
	Classroom Setup: Downloading and Installing Visio	due by 9pm
	Classroom Setup: Step 1: Downloading and Installing VMWare Workstation	due by 9pm
	Classroom Setup: Step 2: Downloading and Saving the Image(s)	due by 9pm
Tue Sep 5, 2023	Classroom Setup: Step 3: Using VMWare to Make your Virtual Machines, Part I	due by 9pm
	Classroom Setup: Step 4: License Your VMWare Through BrightSpace	due by 9pm
	<u>Lab Assignment: Chapter 1:</u> <u>Introducing Active Directory</u>	due by 9pm
Tue Sep 12, 2023	Classroom Setup: Step 3: Using VMWare to Make your Virtual Machines, Part II	due by 9pm
	Lab Assignment: Chapter 2: Managing OUs and Active Directory	due by 9pm

Date	Details Due	
	<u>Accounts</u>	
	Classroom Project: Network Diagram	due by 9pm
Tue Sep 19, 2023	<u>Lab Assignment: Chapter 3: User</u> and Service Account Configuration	due by 9pm
	Classroom Project: ADDS Diagram	due by 9pm
Tue Sep 26, 2023	<u>Lab Assignment: Chapter 4:</u> <u>Configuring Group Policies</u>	due by 9pm
	Classroom Project: ADDS Server	due by 9pm
Tue Oct 3, 2023	<u>Lab Assignment: Chapter 5:</u> <u>Managing Group Policies</u>	due by 9pm
Tue Oct 17, 2023	Classroom Project: Practice Project Build	due by 9pm
Tue Oct 17, 2020	Classroom Project: Practice Project Outline	due by 9pm
	Classroom Project: File Server	due by 9pm
Tue Oct 24, 2023	Lab Assignment: Chapter 6: Domain Controller and Active Directory Management	due by 9pm
Tue Oct 31, 2023	Classroom Project: GPOs and Testing	due by 9pm
	<u>Lab Assignment: Chapter 7:</u> <u>Configuring Advanced Active</u> <u>Directory</u>	due by 9pm
Tue Nov 7, 2023	Classroom Project: Additional Testing	due by 9pm
	<u>Lab Assignment: Chapter 8:</u> <u>Implementing Active Directory</u> <u>Certificate Services</u>	due by 9pm
Tue Nov 14, 2023	<u>Lab Assignment: Chapter 9:</u> <u>Implementing Identity Solutions</u>	due by 9pm
Tue Nov 21, 2023	Classroom Project: Completed Classroom Project Documentation	due by 9pm
Fri Dec 8, 2023	<u>Final Hands-On Project</u>	due by 9pm