

Credit Hours: 3

Contact Hours: This is a 3-credit course, offered in accelerated format. This means that 16 weeks of material is covered in 8 weeks. The exact number of hours per week that you can expect to spend on each course will vary based upon the weekly coursework, as well as your study style and preferences. You should plan to spend 14-20 hours per week in each course reading material, interacting on the discussion boards, writing papers, completing projects, and doing research.

Faculty Information: Faculty contact information and office hours can be found on the faculty profile page.

COURSE DESCRIPTION AND OUTCOMES

Course Description:

This course addresses practical methods for analyzing business problems and designing large-scale software solutions using object-oriented solutions. This course prepares students for the Microsoft Windows Server 2016 r Certification exam.

Course Overview:

ITS430 Network Enterprise Solutions provides students with the skills and knowledge necessary to deploy, configure, and manage Microsoft Windows Server 2016, a powerful and complex operating system. Over the next eight weeks, you will learn a great deal about Windows Server 2016 including deployment methods, management of user and service accounts, maintenance of Active Directory, configuration and troubleshooting of the DNS, Remote Access and Network Policy Server roles, file services and file system security, and the implementation of update infrastructure. This course aligns with, and prepares student to obtain, the Microsoft Certified Solutions Associate (MCSA): Windows Server 2016 certification 70-741: Networking with Windows Server 2016.

Course Learning Outcomes:

1. Demonstrate configuring DNS for the enterprise environment.
2. Apply Active Directory processes and functions throughout the networking domain.
3. Devise a plan to utilize groups, authentication, and group Policy to secure your enterprise.
4. Use Windows auditing to track potential security breaches.
5. Create a plan for secure remote access.
6. Recommend a strategic plan to maximize data availability on Windows-based file servers.

PARTICIPATION & ATTENDANCE

Prompt and consistent attendance in your online courses is essential for your success at CSU-Global Campus. Failure to verify your attendance within the first 7 days of this course may result in your withdrawal. If for some reason you would like to drop a course, please contact your advisor.

Online classes have deadlines, assignments, and participation requirements just like on-campus classes. Budget your time carefully and keep an open line of communication with your instructor. If you are having technical problems, problems with your assignments, or other problems that are impeding your progress, let your instructor know as soon as possible.

COURSE MATERIALS

Required:

LabSim Online Labs. LabSim for TestOut's Server Pro: Networking (Exam 70-741). (Provided with course materials)

***NOTE:** All non-textbook required readings and materials necessary to complete assignments, discussions, and/or supplemental or required exercises are provided within the course itself. Please read through each course module carefully.*

COURSE SCHEDULE

Due Dates

The Academic Week at CSU-Global begins on Monday and ends the following Sunday.

- **Discussion Boards:** The original post must be completed by Thursday at 11:59 p.m. MT and peer responses posted by Sunday at 11:59 p.m. MT. Late posts may not be awarded points.
- **Critical Thinking:** Assignments are due Sunday at 11:59 p.m. MT.
- **Opening Exercises:** Take the Opening Exercise before reading each week's content to see which areas you will need to focus on. You may take these exercises as many times as you need. The Opening Exercises will not affect your final grade.

WEEKLY READING AND ASSIGNMENT DETAILS

Module 1

Readings

- Sections 1.0 and 2.0 in *Server Pro 2016: Networking (Exam 70-741)*. (Read and view all content.)

Opening Exercise (0 points)

Discussion (25 points)

Critical Thinking (50 points)

Server Pro 2016: Networking (X54MD)

For this week's assignment, you will take a 3-hour exam which consists of multiple choice questions and simulations. You can only take the exam once. The exam will consist of Module 1 lecture material and assigned readings. Topics such as DNS installation, name resolution, DNS records management, DNS server properties, IPV4 addresses, and IPV6 addresses will be covered. It is highly encouraged that you read all the recommended readings as well.

Additionally, after reviewing all of the content provided in the module, in 250-400 words compare and contrast IPv4 addressing with IPv6 IP addressing schemes. Submit this portion as a Word document in the assignments area.

Module 2

Readings

- Section 3.0 in *Windows Server Pro 2016: Networking (Exam 70-411741)*. (Read and view all content.)

Opening Exercise (0 points)

Discussion (25 points)

Critical Thinking (50 points)

Windows Server Pro 2016: Networking (X56MD)

For this week's assignment, you will take 3-hour exam which consists of multiple choice questions and simulations. You can only take the exam once. The exam will consist of Module 2 lecture material and assigned readings. Topics such as configuration and implementation of DHCP will be covered. It is highly encouraged that you read all the recommended readings as well.

Additionally, after reviewing all of the content provided in the module, in 250-400 words discuss the role Dynamic Host Configuration Protocol (DHCP) has in managing IP addressing and setting. Submit this portion as a Word document in the assignments area.

Module 3

Readings

- Sections 3.0 and 4.0 in *Windows Server Pro 2016: Networking (Exam 70-411741)*. (Read and view all content.)

Opening Exercise (0 points)

Discussion (25 points)

Critical Thinking (50 points)

Windows Server Pro 2016: Networking (X57U6)

For this week's assignment, you will take 3-hour exam which consists of multiple choice questions and simulations. You can only take the exam once. The exam will consist of Module 3 lecture material and assigned readings. NAT, VPN, and remote access tasks are the main things that the exam will cover. It is highly encouraged that you read all the recommended readings as well.

Additionally, after reviewing all of the content provided in the module, in 250-400 words analyze and discuss the impact IPAM has had on managing DHCP and DNS servers. Submit this portion as a Word document in the assignments area.

Module 4

Readings

- Section 8.0 in *Windows Server Pro 2016: Networking (Exam 70-411741)*. (Read and view all content.)

Opening Exercise (0 points)

Discussion (25 points)

Critical Thinking (50 points)

Windows Server Pro 2016: Networking (X57B3)

For this week's assignment, you will take 3-hour exam which consists of multiple choice questions and simulations. You can only take the exam once. The exam will consist of Module 4 lecture material and assigned readings. Installation, configuration, and management of DFS are covered by the exam. It is highly encouraged that you read all the recommended readings as well.

Additionally, after reviewing all of the content provided in the module, in 250-400 words discuss what the difference is between the namespace root and a folder within DFS. Analyze how can DFS be utilized to prevent users from adding or changing files in a replicated file. Submit this portion as a Word document in the assignments area.

Module 5

Readings

- Section 6.0 in *Windows Server Pro 2016: Networking (Exam 70-411741)*. (Read and view all content.)

Opening Exercise (0 points)

Discussion (25 points)

Critical Thinking (50 points)

Windows Server Pro 2016: Networking (X57B4)

For this week's assignment, you will take 3-hour exam which consists of multiple choice questions and simulations. You can only take the exam once. The exam will consist of Module 5 lecture material and assigned readings. The exam will focus on installation and configuration of DirectAccess and Remote Access services. It is highly encouraged that you read all the recommended readings as well.

Additionally, after reviewing all of the content provided in the module, in 250-400 words describe the issues DirectAccess addresses relating the use of VPNs within an organization. Submit this portion as a Word document in the assignments area.

Module 6

Readings

- Section 7.0 in *Windows Server Pro 2016: Networking (Exam 70-411741)*. (Read and view all content.)

Opening Exercise (0 points)

Discussion (25 points)

Critical Thinking (50 points)

Windows Server Pro 2016: Networking (X55D2C)

For this week's assignment, you will take 3-hour exam which consists of multiple choice questions and simulations. You can only take the exam once. The exam will consist of Module 6 lecture material and assigned readings. The exam covers topics such as NPS, RADIUS, and network access policies. It is highly encouraged that you read all the recommended readings as well.

Additionally, after reviewing all of the content provided in the module, in 250-400 words describe the purpose of a RADIUS server and how RADIUS accomplishes authentication and authorization of remote connections. Submit this portion as a Word document in the assignments area.

Module 7

Readings

- Section 9.0 in *Windows Server Pro 2016: Networking (Exam 70-411741)*. (Read and view all content.)

Opening Exercise (0 points)

Discussion (25 points)

Critical Thinking (50 points)

Windows Server Pro 2016: Networking (X5D2D)

For this week's assignment, you will take 3-hour exam which consists of multiple choice questions and simulations. You can only take the exam once. The exam will consist of Module 7 lecture material and assigned readings. Advanced networking solutions, NIC Teaming, Receive Side Scaling, and VMs are covered in the exam. It is highly encouraged that you read all the recommended readings as well.

Additionally, after reviewing all of the content provided in the module, in 250-400 words analyze and discuss what technology can group NICs together to accomplish load balancing and fault tolerance. Submit this portion as a Word document in the assignments area.

Module 8

Readings

- Section 10.0 in *Windows Server Pro 2016: Networking (Exam 70-411741)*. (Read and view all content.)

Opening Exercise (0 points)

Discussion (25 points)

Final Exam (250 points)

Windows Server Pro 2016: Networking (X5B42)

In Week 8, you will take 3-hour exam which consists of multiple choice questions and simulations. You can only take the exam once. This examination is a comprehensive examination, consisting of questions and simulations from all of the course content. It is highly recommended that you read all the recommended readings and review lab exercises as well.

Portfolio Project (200 points)

IT Consulting Proposal

For this assignment, assume you have been hired by Kris Corporation as an Information Technology consultant. Kris Corporation manufactures parts for the automotive industry. Your job is to submit a proposal that meets their criteria (listed below) based on information provided. You may fill in any gaps in the specifications provided by making assumptions. All assumptions should be clearly identified.

Current Implementation and Concerns:

- Parent domain (kris.local) and child domain (corp.kris.local) for the organization's AD infrastructure are running on Server 2008. The following are concerns related to AD: (1) Kris Corporation is concerned about running multiple domain, and (2) automobile manufacturers are asking Kris Corporation to use single identity to procure orders in real time.
- The company has five locations: Atlanta (GA), Baltimore (MD), Chicago (IL), Seattle (WA) and San Diego (CA). The manufacturing plants are in Atlanta and Seattle.
- Disaster recovery is a big concern.
- Physical space for servers is an issue at the Atlanta location.
- Most of the IT staff is in Atlanta, which is the company's headquarters, but other locations have significant IT personnel as well. Business personnel are similarly distributed across the company's locations.
- Since all locations are independently connected to the internet, file sharing is difficult among sites.

Your document should integrate the content presented in the course. The outline below provides required points to cover. You are free to add other related information.

Describe the technical and business reasons for each choice, citing other resources as appropriate. The Windows Server 2012 operating system should be used for all aspects of the solution. Each choice should be explained with technical and business reasoning. Solutions should be reasonably detailed.

Your solution should cover the following five numbered areas and associated bulleted items listed under each.

1. Active Directory

- Why and how should the company migrate to 2012 AD?
- Should the company remain at multi-domain model or migrate to single domain?
- What technology can provide single sign on? How will it be configured?

2. DNS

- Where should DNS servers reside?
- What kind of DNS security can the DNS servers leverage?

3. DHCP

- Will a form of DHCP fault tolerance be implemented?
- How can DHCP addresses be tracked?

4. Hyper-V

- Evaluate the pros and cons of implanting Hyper-V. Would it need clustering?
- What features of Hyper-V can Kris Corporation leverage?

5. Routing/Security

- How can Kris Corporation improve its networking capabilities in terms of file sharing and security?

Submission Requirements:

- The final submission should provide 8-10 pages in length (not counting title page, images, diagrams, tables, or quotations).
- Support your proposed solution by citing and integrating at least one credible source that is not LabSim and not Wikipedia. Recommended sources include a best practice guide or reference from Microsoft, or an experienced provider of Microsoft solutions.
- At least one diagram must be included (not counted toward the minimum length described above). You may include more.
- Use terms, evidence, and concepts from class readings.
- Your paper must be formatted according to CSU-Global Guide to Writing and APA Requirements.
- If you need assistance with your writing style, start with the links under the Research Help and Writing Help tabs on the CSU-Global Library's homepage.

COURSE POLICIES

Grading Scale	
A	95.0 – 100
A-	90.0 – 94.9
B+	86.7 – 89.9
B	83.3 – 86.6
B-	80.0 – 83.2
C+	75.0 – 79.9
C	70.0 – 74.9
D	60.0 – 69.9
F	59.9 or below

Course Grading

20% Discussion Participation
35% Critical Thinking Assignments
20% Final Portfolio Project
25% Final Exam

IN-CLASSROOM POLICIES

For information on late work and incomplete grade policies, please refer to our [In-Classroom Student Policies and Guidelines](#) or the Academic Catalog for comprehensive documentation of CSU-Global institutional policies.

Academic Integrity

Students must assume responsibility for maintaining honesty in all work submitted for credit and in any other work designated by the instructor of the course. Academic dishonesty includes cheating, fabrication, facilitating academic dishonesty, plagiarism, reusing /repurposing your own work (see CSU-Global Guide to Writing & APA for percentage of repurposed work that can be used in an assignment), unauthorized possession of academic materials, and unauthorized collaboration. The CSU-Global Library provides information on how students can avoid plagiarism by understanding what it is and how to use the Library and internet resources.

Citing Sources with APA Style

All students are expected to follow the CSU-Global Guide to Writing & APA when citing in APA (based on the most recent APA style manual) for all assignments. A link to this guide should also be provided within most assignment descriptions in your course.

Disability Services Statement

CSU-Global is committed to providing reasonable accommodations for all persons with disabilities. Any student with a documented disability requesting academic accommodations should contact the Disability Resource Coordinator at 720-279-0650 and/or email ada@CSUGlobal.edu for additional information to coordinate reasonable accommodations for students with documented disabilities.

Netiquette

Respect the diversity of opinions among the instructor and classmates and engage with them in a courteous, respectful, and professional manner. All posts and classroom communication must be conducted in accordance with the student code of conduct. Think before you push the Send button. Did you say just what you meant? How will the person on the other end read the words?

Maintain an environment free of harassment, stalking, threats, abuse, insults, or humiliation toward the instructor and classmates. This includes, but is not limited to, demeaning written or oral comments of an ethnic, religious, age, disability, sexist (or sexual orientation), or racist nature; and the unwanted sexual advances or intimidations by email, or on discussion boards and other postings within or connected to the online classroom. If you have concerns about something that has been said, please let your instructor know.