



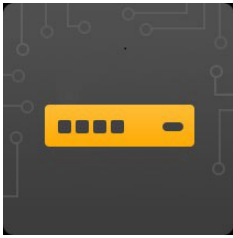
ITNW-1353-001IN-SP2024
Sup Network Server Infrastructure
Spring 2024
Brightspace Internet Course – Online Only

Instructor Information: Joshua Mays, jmays4@com.edu, 409-933-8958

Student Hours and Location: Monday: 10:30 AM - 12:00 PM
Tuesday: 10:00 AM - 11:30 AM
Wednesday: 11:30 AM - 1:00 PM
Thursday: 10:00 AM - 11:30 AM
Friday: 9:30 AM - 11:00 AM

***Please check Brightspace announcements for required updates**

Required Textbook/Materials:



TestOut Server-Pro-2016- Networking
<https://w3.testout.com/courseware/server-pro-2016-networking>

Course Description: This course is designed to prepare you for the following certification exams:

Server Pro 2016: Networking:

Welcome to TestOut's Server Pro 2016: Networking course. This course prepares you for IT support jobs and related IT certifications. You will gain the knowledge and skills you need to install, configure, and maintain the networking features of Microsoft's Windows Server 2016 operating system. To be successful in this course, you need certain prerequisite skills and base knowledge. First, we recommend that you complete the TestOut Server Pro 2016: Install and Storage course or pass the comparable Microsoft exam and have 9 months of Windows Server experience before you begin this course. If you don't have these qualifications, you can still take this course. Just be prepared to have a slightly steeper learning curve than students who have more knowledge and experience to draw from. One of the key preparations for this course is experience with the Windows Server 2016 operating system. We're going to assume that you already know a lot about it. For example, if we were to say we're going to use Server Manager to install a new role or feature, we're going to assume you know what we're talking about and how to do that. We'll also assume that you understand how Microsoft Hyper-V works and how to access virtual machines. But don't worry too much about this. It's an easy skill to pick up, and we'll cover the basics so that you can work with the virtual machines in our lab simulations. Now let's spend a few minutes talking about what you're going to learn in this course. We'll begin with an overview of DNS and topics such as DNS functionality, DNS zones, and DNS records. However, most of the instructions will center around how to implement DNS on a Windows 2016 server.

Course requirements: Students will need to utilize the most currently supported version of the Microsoft Office suite to include Office 2010 or later. Students will need to have access to the Internet with a minimum bandwidth speed of 1MB/768KB (standard DSL or faster)

Determination of Course Grade/Detailed Grading Formula:

	<u>Points</u>
Testout Simulations	410
Testout Practice Questions	395
Course Participation	375
Discussion Topics	200
Final Exam	100
Course Evaluation	15
Total	1000

Grading Scale:

A: Final Average of 895-1000

B: Final Average of 795-894

C: Final Average of 695-794

D: Final Average of 595-694

F: Final Average of 0-594

Late Work, Make-Up, and Extra-Credit Policy: Late work will be accepted for one week after the due date with a points deduction of -20%. Assignments are then removed from Brightspace and a grade of 0 is assigned.

Attendance Policy: Students are expected to attend all lectures (online or on-ground) and labs (online or on-ground). Students not able to attend a session are required to notify the instructor no later than 2 hours before the start of the session. Students who miss more than 35% of the total session times will be considered for student referral and possibly dropped from the course. Students will need to log into the Brightspace system at least 1 time per week.

Communicating with your instructor: ALL electronic communication with the instructor must be through your COM email. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means. (Faculty may add additional statement requiring monitoring and communication expectations via D2L or other LMS)

Student Learner Outcome	Maps to Core Objective	Assessed via this Assignment
DNS Overview and Installation, DNS Name Resolution, Primary and Secondary DNS Zones	Critical Thinking Skills	1.1.1 Install and configure forwarders 1.2 DNS Name Resolution 1.1 Install and Configure DNS 1.1.1 Install and configure forwarders 1.1.2 Configure Root Hints
IPv4 Addressing, IPv6 Addressing, IPV4-to-IPv6 Transitional Technologies	Critical Thinking Skills	2.1 Install and configure DHCP 2.1.1 Install and authorize DHCP servers 2.1.2 Configure DHCP scopes and options
Install DHCP, DHCP Scopes, DHCP Options, and Advanced Scopes. Centralized DHCP and PXE, DHCP Policies, Advanced DHCP Management, Database	Critical Thinking Skills	Install and configure DHCP 2.1.2 Configure DHCP scopes and options 2.1.6 Configure high availability using DHCP failover, Troubleshoot DHCP
IPAM Installation, IPAM DNS and DHCP, Advanced IPAM Administration and Auditing	Critical Thinking Skills	3.2.1 Configure server discovery 3.2.2 Create and Manage IP blocks and ranges 3.2 Implement IPAM 3.2.3 Manage DHCP server properties using IPAM 3.2.4 Manage DNS server properties using IPAM
Routing and Remote Access (RRAS) Routing, Install VPN, VPNs, Connection Profiles,	Critical Thinking Skills	3.2 Implement IPAM 3.2.3 Manage DHCP server properties using IPAM 3.2.4 Manage DNS server properties using IPAM
Direct Access (DA): DA Installation Troubleshooting Network Policy Server (NPS): Install NPS, Templates, Connection Request Policies, Radius Accounting, Manage NPS Policies	Critical Thinking Skills	4.2.4 Install and configure NPS 4.2.5 Configure RADIUS 4.2.6 Create a Network Access Policy 4.2 Implement Remote Access 4.2.4 Install and configure NPS 4.2.5 Configure RADIUS 4.2.6 Create a Network Access Policy
Distributes File Systems (DFS) and BranchCache: DFS Namespaces, Configure DFS Replications, Optimize DFS Replication Database, BranchCache Installation and Configuration	Critical Thinking Skills	5.1.1 Install and configure Distributed File System (DFS) 5.2.1 Enable and configure BranchCache

Academic Dishonesty: Any incident of academic policy will be dealt with in accordance with college policy and the Student Handbook. Academic dishonesty – such as cheating on exams is an extremely serious offense and will result in a grade of zero on that exam and the student will be referred to the Office of Student Conduct for the appropriate disciplinary action.

Student Concerns: If you have any questions or concerns about any aspect of this course, please contact me using the contact information previously provided. If, after discussing your concern with me, you continue to have questions, please contact the Math Department Chair, Leslie Richardson, at lrichardson@com.edu or 409-933-8244.

Course Outline:

Week	Chapter - Topic	EXAM
1	Testout Chapter 1 – DNS Domain Name System	1.1 -1.3
2	Testout Chapter 1 – DNS Domain Name System	1.4 -1.8
3	Testout Chapter 1 – DNS Domain Name System	1.9 – 1.11
4	Testout Chapter 2 – TCP/IP	2.1 -2.3
5	Testout Chapter 3 – DHCP	3.1 -3.3
6	Testout Chapter 3 – DHCP	3.4 -3.6
7	Testout Chapter 3 – DHCP	3.7 -3.9
8	Testout Chapter 4 – IP ADDRESS MANAGEMENT (IPAM)	4.1 -4.3
9	Testout Chapter 5 – Routing AND REMOTE ACCESS (RRAS)	5.1 – 5.4
10	Testout Chapter 6 – DirectAccess (DA)	6.1 – 6.2
11	Testout Chapter 7 – NETWORK POLICY SERVER	7.1 – 7.3
12	Testout Chapter 7 – NETWORK POLICY SERVER	7.4 -7.6
13	Testout Chapter 8 – Distributed File System (DFS) and BranchCache	8.1 -8.5
14	Testout Chapter 9 – High-Performance Network Solutions	9.1 -9.5
15	Testout Chapter 10 – Implement Software-Defined Networking (SDN	10.1- 10.5
16	Final Exam	1.1 -10.5

Institutional Policies and Guidelines

Grade Appeal Process: Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook https://www.com.edu/student-services/docs/Student_Handbook_2023-2024_v2.pdf.

An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor's professional judgment of the quality of the student's work and performance is also not an admissible basis for a grade appeal.

Academic Success & Support Services: The College of the Mainland is committed to providing students with the necessary support and tools for success in their college careers. Support is offered through our Tutoring Services, Library, Counseling, and Student Services. Please discuss any concerns with your faculty or an advisor.

ADA Statement: Any student with a documented disability needing academic accommodations is requested to contact Kimberly Lachney at 409-933-8919 or klachney@com.edu. The Office of Services for Students with Disabilities is located in the Student Success Center.

Textbook Purchasing Statement: A student attending the College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Withdrawal Policy: Students may withdraw from this course for any reason before the last eligible day for a "W" grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the 1st 8-week session is February 28. The last date to withdraw from the 16-week session is April 22. The last date to withdraw for the 2nd 8-week session is May 1. The last date to withdraw for the spring mini session is May 29.

FN Grading: The FN grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The FN grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the FN grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an FN grade.

Early Alert Program: The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer for you to meet your academic goals.

Resources to Help with Stress:

If you are experiencing stress or anxiety about your daily living needs including food, housing or just feel you could benefit from free resources to help you through a difficult time, please click here <https://www.com.edu/community-resource-center/>. College of the Mainland has partnered with free community resources to help you stay on track with your schoolwork, by addressing life issues that get in the way of doing your best in school. All services are private and confidential. You may also contact the Dean of Students office at deanofstudents@com.edu or communityresources@com.edu.