CYBR220: Windows Server Administration

College of Graduate and Continuing Studies, Norwich University

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Course Description

3 credits

Welcome to the Windows Server Administration course. The knowledge learned in this course is reinforced through the different activities that make up the weekly labs. Understanding how a Windows server environment is setup, configured and secured is an important part of being a Cyber Security specialist. Those who wish to steal the data residing on servers know how they work. As someone who defends servers, so should you. Since this is an 8 week course, things are going to be fast paced. Please do your best to keep up. If you get lost or fall behind, you need to notify the instructor immediately.

This course provides students with the skills necessary to design, implement, manage and protect a Microsoft Windows Server Active Directory Domain. Students will apply the lessons learned in this course by performing several lab activities within a virtual environment.

Course Outcomes

The goal of the course is to provide students with the practical knowledge of Microsoft Windows Server and the Active Directory domain structure.

Upon successful completion of this course students will be able to:

- Implement both a parent domain and a child domain;
- Apply changes to users, groups, organizational units;
- Design and implement Group Policy settings to ensure the security of the domain.

Weekly Outline

The week-by-week breakdown of topics is as follows:

Week	Topic	Readings & Assignments
Week 01	Introducing Active Directory	Pre Course Assessment, Virtual Machine Prerequisite, Week 01 Reading(s), Discussion, Lab Simulation(s), Virtual Lab(s).Quiz 1
Week 02	Managing Organizational Units and Active Directory Accounts	Week 02 Reading(s), Discussion, Lab Simulation(s), Virtual Lab(s).Quiz 2
Week 03	User and Service Account Configuration	Week 03 Reading(s), Discussion, Lab Simulation(s), Virtual Lab(s).Quiz 3
Week 04	Configuring and Managing Group Policies	Week 04 Reading(s), Discussion, Lab Simulation(s), Virtual Lab(s).Quiz 4 & 5, Mid Term Exam (units 1-5)

Week 05	Domain Controller and Active Directory Management	Week 05 Reading(s), Discussion, Lab Simulation(s), Virtual Lab(s).Quiz 6
Week 06	Configuring Advanced Active Directory	Week 06 Reading(s), Discussion, Lab Simulation(s), Virtual Lab(s).Quiz 7
Week 07	Implementing Active Directory Certificate Services	Week 07 Reading(s), Discussion, Lab Simulation(s), Virtual Lab(s).Quiz 8
Week 08	Implementing Identity Solutions	Week 08 Reading(s), Discussion, Lab Simulation(s), Virtual Lab(s).Quiz 9, Final Exam (units 6-9)

Required Textbooks

All Required Reading assignments are listed in Weekly Resources. There will be a Cengage *MindTap eBook* link to the chapter readings.

- **Tomsho, G. (2018).** *MCSA guide to identity with Windows Server 2016, Exam 70-742*. **Cengage Learning.**

In lieu of a writing handbook, we strongly recommend that students use the *Purdue Online Writing Lab* as a primary writing resource. Your instructor will provide additional writing guidance.

Grading Criteria

Each week, you will have a variety of assignments to complete and each assignment will be graded based on the category it falls into. Grading for the weekly discussions will be based on quality of your posts (initial and response posts). Remember, discussion questions are designed to foster intellectual conversation regarding the subject. Discussion post responses that lack intellectual merit are not acceptable and have no place in this course (i.e. Good job!, Great post!, I agree…..). Grading for the weekly labs will be based upon the percentage of correctly completed tasks. Quizzes and exams are graded in the traditional sense.

Discussion Groups

In this course, you will be assigned to a small discussion group (if class size permits). Each week your group will discuss at least one question; all questions will be graded. You are expected to contribute *a minimum of at least three posts* to each question every week. The quality of your posts and those of your fellow students will create a lively discussion and ensure that a high level of learning takes place.

Your **first** post should be substantive (approximately 150-250 words) and it should be made by **Tuesday** (the earlier you make your initial posts, the more your classmates, and you, will have to work with). Your deadline for first post is Wednesday night after which time you will loose points for the week. It should answer the question using your own experience, if appropriate, and, very importantly, it should refer to the readings of that week, using correct APA citations. You should all conduct additional readings and research beyond the readings and resources provided for each week in order to completely answer the discussion question.

Your **second** two posts should be responses to posts made by your fellow group members. This is a minimum requirement as you are expected to respond to more posts in order to have a lively discussion. Responses such as, "Good point," or, "I agree," are not sufficient. Your response posts should be substantive –ask questions, point out additional thoughts, spur deeper insights and thoughts, etc. Posts should build on the course content and add momentum to our collective learning. Disagreement and critical feedback are part of an academic classroom, as is respect for the diversity of opinion. Above all, respect for each other as learners is paramount. Challenging, disrespectful, abusive, or profane language will not be tolerated in any form.

For more information about what is expected in regard to discussion postings, please review the Grading Guidelines and Rubrics document.

Assignments

This course is a hands-on intensive course. Your weekly labs will be comprised of several tasks, many of which will build upon the previous task. Many of the labs will also build upon the successful completion of the previous lab. You will also take a Pre-Course Assessment, and a Virtual Machine Lab Prerequisite graded assignment located at the top of the course. During the course you will have Cengage MindTap Readings, Labs, Virtual Labs, and Quizzes, as well as Moodle Midterm and Final.

Lab Exercises

Each week, you will have a lab set that covers the topics learned that week. It is recommended that you complete each component of the lab in order; do not skip around within the lab environment. The lab environment and e-book are built into the MindTap environment, to access the MindTap environment you will click on one of the Cengage MindTap links (see "Cengage Learning Registration Instructions" in course.) You will need to either have purchased a code or have Cengage unlimited to gain access into the MindTap environment.

For this course you will be using the Cengage MindTap environment for Labs, Virtual Labs, and Quizzes (next section). After viewing the Cengage Getting Started video located at the top of the course and taking your Pre-Course Assessment and the Virtual Labs Prerequisite you will have Labs and Virtual Labs every week.. You have 60 hours of lab time to complete all the labs for this course; this should be more than enough time for you to do so.

Each of the labs are also individually timed and even if you do not finish in the predetermined time, the lab will close. Your labs are available as many times as you need. If you run out of time in any Cengage lab, you can restart the lab and redo the lab. Your grade will import directly from the MindTap environment into Moodle.

Since these labs are hosted on remote systems, the resources that support these labs are shared. With this being said, if you experience problems with connecting, with latency or if you receive an error stating that there are no resources available, then try back a little later. Do not wait until Saturday at 5PM to start your lab; you may find everyone is trying to do the same thing and this will cause the system to be unable to handle all of the users at once. Waiting until the last minute to start your lab work is not a reason for an extension of the assignment.

Quizzes & Exams

There are Quizzes built into the Cengage MindTap content for each week that is related to your readings, labs, and virtual labs.

The Mid-Term Exam and Final Exam (in Moodle) will consist of 60 and 50 questions (respectively) out of larger pools. The Mid-Term will cover Chapters 1-6 and the Final will cover Chapters 7-11. You will have 120 minutes to complete each exam. The exams will be open for two days and will auto-submit even if you are not done, and you can see your grade immediately. You can view the correct answers after the exams have closed. There will be a clock showing the remaining time.

If you will have any trouble with the exams (scheduling, amount of time, etc.) make sure to contact your instructor immediately. If you have any problem with any of the questions in the quizzes or exams, note the question number and copy the **entire** text of the question and send the instructor an email explaining the problem. For example, please let your instructor know if there is a spelling mistake that would make an otherwise correct answer wrong or if the textbook content is not agreeing with the answers.

Submission Deadlines

Discussions officially close on Saturday of each week at 11:55 PM Eastern time. Posts submitted after that time will not be graded.

Labs, Virtual Labs, and Quizzes are due on their assigned dates at 11:55PM Eastern time.

Exams are due on their assigned dates at 11:55 PM Eastern time.

Late Lab Submission

It is important that writing assignments and discussion posts be completed on time. Extensions of deadlines will be given only for serious extenuating circumstances. In the absence of such extensions, assignments may be downgraded for lateness at the discretion of the instructor.

Extra Credit Submissions

Extra credit submissions and the length of such submissions require advanced approval by your instructor. Instructors are not required to use the grading rubric, or provide rubric scores. Instructors do not have to provide the same level of formal feedback on extra credit submissions as they do on essay assignment, but should provide whatever level of useful feedback is appropriate.

The **maximum** grade based on word-count is 0.005 credit/word, or 5 points per 1,000 words. Thus a student who agrees to submit a 2,000-word essay on a specific topic approved in advance may have **up to** 10 points added to the "Extra Credit" column in the gradebook. These points are added to the total points accumulated.

Extra credit assignments cannot be used as a substitute for missed labs. The way to obtain credit for missed labs is to submit the paper late and receive a grade based on the late lab policy.

Grades

The following table shows the graded assessment types contained within this course and the assigned weighting to determine the final course grade. Each item (a single discussion/assignment) in the course is worth 100 points for ease of understanding grade, please note though that different sections are worth a different percentage for the entire course final grade.

Graded Activity	Weight
Discussions (8 x 100 points)	20%
Lab Activities (100 points each)	30%
Weekly Quizzes (100 points each)	15%
Mid Term (100 points)	15%
Final Exam (100 points)	20%
TOTAL	100 %

Letter grades for the course will be based on the following grading scale:

Letter Grade	Percentage	Grade Point
A	93-100%	4.0
A -	90-92.9%	3.7

B +	87-89.9%	3.3
B	83-86.9%	3.0
B -	80-82.9%	2.7
C +	77-79.9%	2.3
C	75-76.9%	2.0
C -	73-74.9%	1.7
D +	70-72.9%	1.3
D	67-69.9%	1.0
D-	63-66.9%	0.7
F	0-62.9%	0.0

For complete information on the Grading Policy for Bachelor Degree students, please refer to the CGCS Online Catalog (Sub-Section of Catalog on "Grades.")

Academic Honesty and the Norwich University Honor Code

A student must submit work that represents the student's own original analysis and writing. Copying another's work is not appropriate. If the student relies on the research or writing of others, the student must cite those sources. Words or ideas that require citations include, but are not limited to all hardcopy or electronic publications, whether copyrighted or not, and all verbal or visual communication when the content of such communication clearly originates from an identifiable source. While students are encouraged to seek editing feedback, extensive revisions of one's work by another person is considered a lack of academic honesty, as it is representing another student's work as one's own.

For more information see:

Academic Dishonesty
Academic Integrity
Norwich University Honor Code

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Section 504 of the Rehabilitation Act of 1973/ADA

Please consult Appendix H: University Policy - Section 504 of the Rehabilitation Act of 1973/Americans with Disabilities Act (ADA) for instructions on obtaining an accommodation.

Disclaimer: Please note the specifics of this Course Syllabus are subject to change. Students are responsible for abiding by any such changes. Your instructor will notify you of any changes.