cit@WKU
Computer Information Technology

SYLLABUS
(Fa17)
CIT 476: Network Administration I
Faculty: Cheryl Purdy

Course Catalog Description

This course covers network administration and management with an emphasis on technologies and tools for supporting large-scale business networks.

Topics and Objectives

Upon completion of this course, the student shall be able to:	How the student will develop outcomes	How the student will be assessed the learning on these learning outcomes
Network Fundamentals • Describe infrastructure components in an enterprise network • Describe collapsed core and three-tier architectures • Compare and contrast network topologies • Apply troubleshooting methodologies • Configure IPv4 addressing and subnetting • Compare and contrast IPv4 address types/needs • Configure, verify, and troubleshoot IPv6 addressing • Configure IPv6 Stateless Address Auto Configuration	Readings Instructional Videos Discussions	Discussions Quizzes Lab Exercises Hands-On Labs Culminating Project
LAN Switching Fundamentals • Describe switching concepts • Interpret Ethernet frame format • Configure VLANs spanning multiple switches in the enterprise • Configure and troubleshoot interswitch connectivity • Configure, verify, and troubleshoot port security	Readings Instructional Videos Discussions	Discussions Quizzes Lab Exercises Hands-On Labs Culminating Project
Routing Fundamentals • Describe routing concepts • Interpret the components of routing table • Describe how a routing table is populated by different routing information sources • Configure, verify, and troubleshoot inter-VLAN routing • Compare and contrast static routing and dynamic routing	Readings Instructional Videos Discussions	Discussions Quizzes Lab Exercises Hands-On Labs Culminating Project

• Configure, and troubleshoot IPv4 and IPv6 static routing		
Infrastructure Services • Describe DNS lookup operation • Configure DHCP on a router (excluding static reservations) • Troubleshoot DHCP connectivity issues • Configure and verify NTP operating in client/server mode • Configure access list for routed interfaces • Configure, verify, and troubleshoot inside source NAT	Readings Instructional Videos Discussions	Discussions Quizzes Lab Exercises Hands-On Labs Culminating Project
Infrastructure Maintenance • Configure and verify device-monitoring using syslog • Configure and verify initial device configuration • Configure, verify, and troubleshoot basic device hardening • Perform device maintenance • Troubleshoot and resolve problems	Readings Instructional Videos Discussions	Discussions Quizzes Lab Exercises Hands-On Labs Culminating Project

Welcome!

Welcome to CIT 476: Network Administration I! My name is Cheryl Purdy and I am anticipating a rewarding, enjoyable experience for all of us with the primary focus being that you have the opportunity to learn investigate routing and switching in an enterprise environment.

This course covers the objectives of the CCNA ICND1 certification exam. The ICND1 is the first half of the Cisco CCNA certification. Throughout this course you will be using *TestOut®*, a powerful and intuitive online lab simulation software. TestOut will give you give you the opportunity to complete hands-on labs within a simulated routing/switching environment.

Class Location/Times

This class is delivered in an online format. Because it contains a significant number of online assignments, it will be necessary for students to have access to reliable Internet connections. The class is available at the following website:
https://blackboard.wku.edu.

Required Material(s)

TestOut Routing and Switching Pro (Access Code)

ISBN-13: 978-1-935080-55-8

In order to use TestOut, you will need to purchase an access code. It can be purchased from the WKU book store, or directly from TestOut. If purchasing directly from TestOut, you will need a promo code in order to receive the discounted WKU pricing. Instructions on how to purchase the access code will be discussed during the first week of class.

Instructor Information

Name: Cheryl Purdy, MBA, A+, CCNA, ACE, AME
Email: cheryl.purdy@wku.edu, cheryl.purdy@kctcs.edu (preferred)
Phone: (270) 686-4660

Email is the best method of contact, and the KCTCS address is the preferred email. Generally, I will respond to emails within 24 hours. However, if you have not received a response from me after 48 hours, please send me a follow-up marked with high-priority! Also, when e-mailing, please put the course name in the subject line.

I highly discourage students from emailing me at the last minute before an assignment deadline for the purpose of requesting an extension. For more information regarding late assignments, please refer to the section titled **Late Assignments.**

Assignments & Point Values

Your grade for this course will be determined according to the following scheme:

Activities	Points Possible
TestOut® Lab Exercises	190
TestOut® Practice Questions/Chapter Quizzes	210
Hands-On Lab Content	100
Class Discussions	110
Culminating Lab Project	140
Comprehensive Final Exam	250
Total Points Available	1,000

The grading scale that will be used is:

- A = 900 – 1,000 points
- B = 800 – 899 points
- C = 700 – 799 points
- D = 600 – 699 points
- F = 0 – 599 points (or cheating)

Please see the Course Master Schedule in the [**Start Here**] section of Blackboard for more details.
Please be sure to review your grades right away; corrections will not be made more than seven days after the initial grade is posted.

Contingency Points

Sometimes uncontrollable problems occur during the course that can negatively affect a student's grade. Examples include personal issues, family issues, forgetting an assignment, encountering test questions that are worded poorly, course errors, etc.

Because I want to be fair to all students, I am giving you 25 contingency points (2.5%). This means that for whatever reason, you can lose 25 points and still have a 100% average.

Please do not ask for additional contingency points; under no circumstances will more be provided.

Academic Dates

To determine important academic dates such as the last day to drop with a W, or the final exam schedule, please see http://www.wku.edu/registrar/academic_calendars/

Activities

There are six major activities in this course. A brief explanation of each activity is as follows:

- **TestOut® Lab exercises** – You will complete various lab exercises within *TestOut®*. Instructions on how to complete these lab exercises will be provided during the course.
- **TestOut® Practice Questions Quizzes** – You will complete practice questions and chapter quizzes that are based upon TestOut chapter reading.
- **Hands-On Lab Assignments** – Periodically you will have a hands-on project to complete
- **Class Discussions** – The primary method of faculty-student and student-student interaction in this class will be via the class discussions.
- **Comprehensive Lab Project** – You will create your own "lab scenario" based upon what you have learned in the course. This lab scenario will be similar to what you have learned from the TestOut lab exercises. Details regarding the project will be announced later on in the semester.
- **Comprehensive Final Exam** – The proctored final exam will be comprehensive and administered as scheduled by the University.

Final Exams

All CIT exams must be proctored. While you may be able to use the proctor of your choice at the location of your choice, you must register with the WKU testing center in order to have your proctor approved (see http://www.wku.edu/testing/ for more details). Note that you must pre-register with the testing center before taking the exam, which is usually no less than 10-days prior. I highly suggest that you register early. Final exams must be taken during final exam week. You may choose Monday through Wednesday during finals week to take the exam.

As the final exam is an assessment and not a learning activity, correct answers are not provided. However, if you wish to review your exam, it will made available to you. However, as with other on-campus final exams, you must know that student review can only be accomplished on-campus (Bowling Green), in a proctored environment, during a full term (fall and spring) following that of the exam's administration. This step is necessary to protect the integrity of the exam.

Also, since the final exam is an assessment, your score will likely be lower than you have previously experienced with the learning activities. Therefore, after completing the exam, your overall average will

likely go down, not up. This means you need to be sure and complete all of the learning activities as assigned in order to have a very high average before taking the final.

Attendance Policy

Because this is an online course there is no classroom attendance requirement. However, I strongly encourage you to remain actively involved in this course. Some suggestions for doing this are: 1) check your WKU email and Blackboard regularly for course announcements and information; 2) stay abreast of all due dates as they are added to the course schedule on Blackboard; 3) contribute regularly and effectively to the online discussions; 4) complete all work on time and to the very best of your ability.

For all discussion responses, you will be graded on four characteristics:

- **Timeliness** - For full points, you must contribute to the discussion two out of seven days
- **Style/Mechanics** - For full points, postings must be free of grammar issues, and follow APA Style
- **Comprehension** - For full points, postings must reflect comprehension of the topic(s)
- **References** - For full points, postings must be supported with the text or other scholarly sources

Instructor Feedback

In <u>general</u>, I will post weekly grades in a timely manner. Grades will be available through the BlackBoard Grade Center. Depending on the assignment, I will provide some form of feedback within the BlackBoard Grade Center. Some assignments will have an associated rubric that will be used as feedback. However, if you have questions, whatsoever, about any comments and/or grades, please contact me within three or four days at most while the issues are still fresh in both our minds. This will help to iron any issues out as soon as possible.

Also, if I mistakenly note you as missing any assignments and you did submit them, please <u>immediately</u> let me know the time and date you posted. I will be very, very happy to download the post and correct my records. I will not make changes to grades after one week of posting.

Non-Graded Assignments

Some activities that you will complete during the course are ungraded or carry no point value (like reading assignments). However, it is very important that you complete these activities. Non-completion of these activities may negatively impact your graded work.

Incompletes

All incomplete requests must follow school guidelines. See the University catalog.

Extra Credit

There is no extra credit or make-up work as the class assignments reflect what is required for successful completion of this course.

Academic Standards

I expect all students to support the same respect for individuals, commitment to issue and problem resolution, and open communication and feedback as in any learning environment.

Specifically, all students are expected to:

- Accept responsibility and accountability for all use actions and content posted to any online classroom, public meeting or personal inbox (email).
- Maintain the same ethical standards expected in a collaborative, academic environment.
- Demonstrate respect for all faculty, students, and staff regardless of age, race, gender, religion, national origin, veteran's status, disability, or sexual orientation.

In the online environment, the following will not be tolerated:

- Harmful, threatening, libelous, or abusive content
- Profanity of any kind
- Copyright infringement or violation of patent, trademark, proprietary information, or confidentiality agreements
- Misrepresentation of identity through alteration of inbox (email) names
- Posting unsolicited advertisements to public meetings or private inboxes (no spamming)
- Transferring computer viruses, intentionally or unintentionally, or other code that disrupts or interferes with other users' use of the online environment or personal computers, systems, or networks.

Honesty

I highly value academic honesty. A student must always submit work that represents his or her original words or ideas. If any words or ideas are used that do not represent the student's original words or ideas, then the student must cite all relevant sources. The student should also make it clear the extent to which such sources are used.

Words or ideas that require citation 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.

All submissions to any public meeting or private mailbox fall within the scope of words and ideas that require citations if used by someone other than the original author.

Academic dishonesty in an Online learning environment could involve the following:

- Having a tutor or friend complete a portion of your assignments
- Having a reviewer make extensive revisions to an assignment
- Copying work submitted by another student to a public class meeting
- Using information from on-line information services without proper citation

Any of these practices could result in charges of academic dishonesty. Sanctions range from failing assignment or class grades to expulsion.

I consider academic honesty a very serious issue. I have, and will fail students that I discover are not adhering to the above guidelines.

Class Navigation

Go to http://blackboard.wku.edu and follow the login instructions (usually available by the first day of class). This site will be the primary means for quizzes, grades, announcements, exam and homework scores, reading materials, discussions, and other supplemental course information that you will need. Please be sure and check this site regularly.

Computer Access

This class requires each student to make use of several software packages, various other software tools and the Internet. All required resources are available either in the general Student Computer Labs across campus, on WKU Extended campuses, and typically, at public libraries. Lack of hardware, software and Internet connectivity at home to complete any assignment is not an acceptable reason for not completing work. You may work from any location you prefer (home, work, etc…), but you will need access to MS Office software.

Technology Issues

School servers are unavailable from time-to-time. Accordingly, I will accept e-mailed assignments to my personal mailbox for time-stamping purposes only. However, once Blackboard is available to you, in order to receive a grade, the assignment must be posted to the appropriate submission area.

Also, from time to time the Blackboard system will lock-up during a quiz or exam. If this happens, please contact me as soon as possible. I can only reset the exam, which means you will have to take it over (this includes final exams). If you wait until the last minute to take an exam, you may not be able to reset due to time limitations.

For comments/complaints about technology issues (for example, Blackboard exam problems), please contact the Office of the Chief Information Technology Officer (270745-2243).

Late Assignments

Due to the nature of this course and based upon my teaching experience, it is critical that you are timely in submitting the assignments. Since all assignments are made available before they are due, no late work will be accepted for any reason. Again, no late work will be accepted for any reason. Please do not wait until the last minute to do your assignments; no late work will be accepted for any reason.

Cancellations

If you are dropped for any reason (lack of payment, etc.), your access to Blackboard may be terminated. In this event you will **NOT** be permitted to make up on-line course assignments/activities during the time you lost access to Blackboard.

Student Disability Services

In compliance with university policy, students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Office for Student Disability Services in Downing University Center A-200. The OFSDS telephone number is (270)745-5004; TTY is (270)745-3030. Per university policy, please DO NOT request accommodations directly from the professor or instructor without a letter of accommodation from the Office for Student Disability Services.

Grievance Process

If you are unhappy with any aspect of the course, please contact me via email with a detailed explanation of the problem. I will do my best to help resolve the issue. If you are still unsatisfied, please contact the program coodinator, Dr. Mark Revels, at mark.revels@wku.edu.

Schedule Exceptions

I will not approve any schedule exceptions.

Title IX Misconduct/Assault Statement

Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's Title IX Sexual Misconduct/Assault Policy (#0.2070) at https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf and Discrimination and Harassment Policy (#0.2040) at https://wku.edu/policies/hr_policies/2040_discrimination_harassment_policy.pdf.

Under these policies, discrimination, harassment and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Title IX Coordinator, Andrea Anderson, 270-745-5398 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121.

Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are "Responsible Employees" of the University and **MUST** report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's Counseling and Testing Center at 270-745-3159.

ADA Accommodation Statement

In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, 1074. SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at sarc.connect@wku.edu . Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center.