



Business Technology Dpt. | Fall 2020

Chair: Kenley Nebeker, 701.713.3780

## **CIS 267: Intermediate Networking I**

### **COURSE SYLLABUS**

#### **COURSE INFORMATION**

CIS 267: Fundamentals of Networking I, 3 credits, Online: PS #10723

Course Description: Prerequisite: CIS 165: Fundamentals of Networking II. This course familiarizes students with the equipment applications and protocols installed in enterprise networks, with a focus on switched networks, IP Telephony requirements, and security. It also introduces advanced routing protocols such as Enhanced Interior Gateway Routing Protocol (EIGRP) and Open Shortest Path First (OSPF) Protocol. Hands-on exercises, including configuration, installation, and troubleshooting, reinforce student learning.

#### **INSTRUCTOR**

Ken Quamme, Western Star 117, 701.774.4207, [Ken.Quamme@willistonstate.edu](mailto:Ken.Quamme@willistonstate.edu)

Office Hours: Monday, Wednesday & Friday: 8:00-9:00; Tuesday & Thursday 1:00-2:00 or by appointment

#### **TEXTBOOK & MATERIALS**

- Digital Text sponsored and support by Cisco Networking Academy, <http://www.netacad.com>
- [http://padlet.com/ken\\_quamme/CIS267Fall2020](http://padlet.com/ken_quamme/CIS267Fall2020)
- Notebook Computer
- Packet Tracer

## **STUDENT LEARNING OUTCOMES**

### **INSTITUTIONAL OUTCOMES**

1. Students will demonstrate effective communication skills.
2. Students will use reasoning skills to analyze and solve problems.

### **PROGRAM OUTCOMES**

1. Demonstrate computer network installation, maintenance and repair skills
2. Design, install and troubleshoot a Local Area Network (LAN)
3. Describe the fundamentals of Wide Area Networking (WAN)
4. Apply knowledge and interact with Windows server technologies to manage users, active directory, network infrastructure configuration and server applications
5. Demonstrate a knowledge of computer network security concepts and techniques
6. Demonstrate a knowledge of basic project management concepts and management tools
7. Perform fundamental desktop management skills using a Linux based operating system
8. Demonstrate a knowledge of wireless LAN
9. Troubleshoot and repair computer hardware and software problems

### **COURSE OUTCOMES**

1. Plan and install a small network connecting to the Internet
2. Troubleshoot network and Internet connectivity
3. Share resources such as files and printers among multiple computers
4. Recognize and mitigate security threats to a home network
5. Configure an integrated wireless access point and wireless client

### **ASSESSMENT TASKS (FOR COURSE OUTCOMES)**

#### **Packet Tracer Activities 25%**

Assessment tasks deal with how you will measure student learning. A critical component of learning is to work in lab and simulations. CIS 267 provides an opportunity to learn via various tasks to complete and the TestOut Lab Sim and Packet Tracer are the ones to use.

#### **Labs 25%**

The labs in CIS 267 provide the students a great opportunity to work in teams and explore along with research the tasks presented in the labs.

#### **Chapter Assessments 20%**

The students will complete the assessment from each chapter to help to determine strengths and weaknesses in understanding the reading material along with the video content presented.

#### Final Lab Project 15%

The final lab project is a culmination of their activities and labs during the semester.

#### Final Assessment 15%

The final assessment is a comprehensive multiple choice tool to help the students better understand the basics of the computer, portable devices and knowledge to communicate with a digital device.

### PROCESS SKILLS

1. Describe networking standards, concepts, topology, and media including LANs, WANs, the OSI model, cabling, IP addressing, sub-netting, network hardware and various protocols.
2. Explain networking theory and protocols on common network systems.
3. Apply IP routing concepts and router administration, distance vector and link-state based IP routing algorithms, router interfaces, routing tables, and routing protocol configuration and network security concepts.

### CONCEPTS & ISSUES

- OSI Reference Model
- TCP/IP Reference Model
- Application Layer protocols
- Transport Layer
- Network Layer
- Link Layer and LANs
- Wireless LANs Multimedia Networking

### ASSESSMENT PORTFOLIO

Each degree seeking student is required to maintain an assessment portfolio on Blackboard for his/her time at Williston State College. For this class you should include evidence of completing institutional learning outcomes.

### GRADING POLICY

Your final grade in this class is based on the quality of work from participation/attendance, completion of assignments, and exam scores. You will get out of this class what you put into it. I hope you choose to fully engage in this course, glean as much information from the course material and each other as possible. It takes more effort to fail a class than to pass it. Whatever assistance or guidance you need, please reach out to the instructor.

Grading is based on the following scale:

90%-100% is an A  
80%-89% is a B  
70%-79% is a C  
60%-69% is a D  
59% and below is an F

The instructor reserves the right to assign borderline grades as deemed appropriate. Participation, professionalism, and assignment completion are taken into account.

## **LATE POLICY**

I do not accept late assignments. Please contact me if there is an extenuating circumstance to see if permission will be granted to submit an assignment late; 24 hour notice is preferred.

If you know you will be absent from class, you are still expected to get your work done. Time management is a critical component of life, often best learned in college. When applicable, make arrangements with me to receive an assignment or schedule an exam prior to your absentia. Unless these arrangements are made in advance, no late assignments will be accepted.

I'm willing to work with your circumstances to ensure your success; however, for this to be possible, there needs to be clear and open communication, initiated by you.

## **ACCESSIBILITY STATEMENT**

Williston State College is committed to providing equal access to students. If you have a disability which may impact your performance, attendance, or grades in this course that requires accommodations, you must first register with WSC Accessibility Support Services. Please note that classroom accommodations cannot be provided until your instructors receive an Accommodations Form, signed by you and the Accessibility Support Services Coordinator.

## **IMPORTANT DATES**

- Last day to drop: September 2, 2020
- Last day to withdraw: November 15 2020
- For important dates concerning holidays, last date to withdraw from class, etc., please visit the WSC catalog available on the website: <https://www.willistonstate.edu>

## **ACADEMIC RESOURCES**

Take advantage of academic resources available to you at Williston State College:

- Communication Lab: Supplemental instruction is provided to assist students who are either having difficulty or desiring extra help with specific subjects. The Communication Lab assists with composition, writing, communication, and public speaking. The Communication Lab is located in Stevens Hall 120. Students should make appointments at [wsc.writinglab@willistonstate.edu](mailto:wsc.writinglab@willistonstate.edu). You can also call the Comm. Lab 701-774-4511.
- Math Lab: Supplemental instruction is provided to assist students who are either having difficulty or desiring extra help with specific subjects. The Math Lab assists with all math

needs. The Math Lab is located in Stevens Hall room 209.

- Learning Commons: It's not just the Library anymore. In addition to the normal library functions (book checkout, research assistance, etc.), the Learning Commons serves a number of other functions. Get help with Blackboard and other Distance Ed questions. The "technology counter" provides an opportunity to play with some of the latest technology. Computers and printers available. If you have questions, call (701-774-4226). To contact the Office of Extended Learning please email [wsc.extendedlearning@willistonstate.edu](mailto:wsc.extendedlearning@willistonstate.edu).
- SmarThinking: Web based program that offers live tutoring services in a variety of subject areas at no cost to the student. With SmarThinking you can access live tutors, ask a question and come back the next day for a response, and/or submit writing pieces to be reviewed. If you have further questions or need assistance in using this great tool, please stop in the Learning Commons in Stevens Hall or contact Katie Peterson at 701-774-4594.

## **STUDENT ACADEMIC INTEGRITY**

Integrity of the academic process requires that credit be given where credit is due. Accordingly, it is a breach of academic integrity to present as one's own work the ideas, representation, or works of another, or to permit another to present one's work without customary and proper acknowledgement of authorship. Students are expected to conduct themselves at all times within permissible limits of assistance as stated by faculty.

Students will be held responsible for any breaches of academic integrity. More common breaches of academic integrity include but are not limited to: cheating, plagiarism, forgery, fabrication, facilitation, or aiding academic dishonesty; theft of instructional materials or tests; unauthorized access or otherwise manipulating laboratory equipment or computer programs without proper authorization; alteration of grades or permanent files; misuse of research data in reporting results; use of personal relationships to gain grades or academic favors; or otherwise attempting to obtain grades or credit through fraudulent means. These breaches of academic integrity are also viewed as misconduct and are treated accordingly.

Students who violate the Student Academic Integrity guidelines may face scholastic or disciplinary consequences. The instructor may reflect the incident of academic dishonesty through the assignment of the student's grade in the course. If the student has a grievance related to this action, that grievance would be directed to the Chair of the department in which the course is housed.

Breach of academic integrity may result in failure of the assignment, exam, and/or class.

### **STUDENT RESPONSIBILITIES:**

- You are expected to read the relevant materials and participate in class discussions in a timely manner.
- You are expected to respect your fellow students and the Instructor in online and on campus discussions.
- It is your responsibility to ask questions when you are uncertain about assignments or course materials.
- If you have questions concerning grades, you should contact the Instructor immediately. You are responsible for checking Blackboard in a timely fashion to ensure that the grade recorded is your correct grade.
- It is your responsibility to contact the Instructor as soon as possible if you are encountering any issues that would hinder your performance in this class.
- You are responsible for earning your grade (with the Instructor making every effort to help you learn the material).
- If you are concerned about your grade, you should speak to the Instructor NO LATER than mid-term. No consideration will be given to request to adjust your grade at the end of the semester unless there is an error in calculations.

### **GRIEVANCE POLICY**

Occasionally, students are dissatisfied with some dimension of the course. In such cases, students should first schedule a meeting with the instructor. If the student and instructor cannot reach a satisfactory resolution, the student should schedule a meeting with the Chair of the Department. (See page 10 of the Student Code of Conduct.)

### **TITLE IX**

Survivors of sexual assault, domestic violence, and sexual harassment: please be aware that as an instructor, I am legally obligated to report all instances of sexual assault, domestic violence, and sexual harassment involving students. If you would like to speak to someone confidentially, please contact the WSC Counselor at (701)774-4212 (they are NOT mandated to report such instances).

### **ATTENDANCE AND PARTICIPATION**

As an on-campus class, participation and attendance is crucial to fully engage and learn the subject matter. Students who have not shown to class by Thursday, September 5<sup>th</sup> will be reported for non-attendance and dropped from the class. Attendance and participation is considered through assignments, participation in class activities, and attendance etc. Students are expected to attend class regularly. If you anticipate being absent for a class, notify the instructor *before the class begins*. If you miss a class, you are still expected to complete all work and are responsible for getting notes from a classmate. Failure to notify the instructor of the

absence prior to the start of class will result in earning a “0” grade for any in-class activities, assignments, and/or participation points.

Attendance involves not just physical presence in the classroom, but engagement in the class as well. Headphones are not allowed to be in ears during class, as these create a distraction for yourself, other students, and the instructor.

Participation points occur by way of both class attendance and in-class activities. To earn participation points, students must be engaged in the course materials. Showing up late to class, disruptive or inappropriate behavior, or disengagement will result in a reduction of participation points.

This class, as with all college coursework, will require an investment of time. Please anticipate spending 6-9 hours of work each week on this course; 3 of those hours will be in the classroom.

## **FINAL EXAMS/ACTIVITIES**

Students are required to take the final examination or engage in the final activity on the date and at the time presented as part of the course syllabus. Exceptions may be made only in emergency situations and in the case of scheduling conflicts with college sponsored events by promptly submitting a written request detailing the circumstances to the instructor of the course. Your final exam is the week of December 14 – 18, 2020.

## **SCOPE AND SEQUENCE OF THE COURSE (SUBJECT TO CHANGE)**

<b>Week</b>	<b>Date Range</b>	<b>Instruction Includes</b>
<b>1</b>	8/24 – 8/28	
<b>2</b>	8/31 - 9/4	
<b>3</b>	9/7 - 9/11	
<b>4</b>	9/14 – 9/18	
<b>5</b>	9/21 – 9/26	
<b>6</b>	9/28 – 10/2	
<b>7</b>	10/5 – 10/9	
<b>8</b>	10/12 – 10/16	
<b>9</b>	10/19 – 10/23	
<b>10</b>	10/26 – 10/30	
<b>11</b>	11/2 – 11/6	
<b>12</b>	11/9 – 11/13	
<b>13</b>	11/16 – 11/20	
<b>14</b>	11/23 – 11/27	
<b>15</b>	11/30 – 12/4	
<b>16</b>	12/7 – 12/11	
<b>Finals Week</b>		