



## CRN258 Network Technology Application Lab Syllabus

### Course Information

Credits	3
Campus	Washburn Institute of Technology
Address	5724 SW Huntoon
City/State/Zip	Topeka, Kansas 66604
Office Fax	785-273-7080

### Description

These concurrent courses discuss the WAN technologies and network services required by converged applications in a complex network. The courses enable students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Students will also develop the knowledge and skills needed to implement virtual private network (VPN) operations in a complex network.

Prerequisite: Successful completion of Enterprise Networking and Enterprise Networking Lab.

### Textbooks

Please see instructor

### Student Learning Outcomes:

- A. Communicate effectively
- B. Integrate technology
- C. Learn effectively
- D. Demonstrate cooperative teamwork skills
- E. Apply safety in the workplace
- F. Think critically and creatively
- G. Demonstrate responsible work ethics

### Competencies

- 1. Describe different WAN technologies and their benefits.
- 2. Describe the operations and benefits of virtual private networks (VPNs) and tunneling.
- 3. Configure and troubleshoot serial connections.
- 4. Configure and troubleshoot broadband connections.
- 5. Configure and troubleshoot tunneling operations.
- 6. Describe operation and benefits of Quality of Service (QoS).

7. Monitor and troubleshoot network operations using syslog, SNMP, and Cisco IP SLA (service level agreement).

## Guidelines for Success

### Assessment Plan

Assessment is an integral part of the educational process at Washburn Tech and accurate feedback is an important tool in continuously improving the institution's technical programs. Students can expect to participate in assessment activities prior to entry into programs, within specific courses and following program completion for specific fields of study.

### Grading Rationale and Grading Scale

#### Grading Criteria

90% or above A

80% - 89% B

70% - 79% C

60% - 69% D

Below 60% F

Students must have a cumulative 2.0 (on a scale of 4.0) or greater grade point average to pass this course. Students must have a cumulative 2.0 (on a scale of 4.0) or greater grade point average after completion of all required courses to graduate.

### Grading Rationale:

Course evaluation will be based on performance on quizzes, tests, projects, lab assignments, papers, presentations, and weekly performance. Tests and quizzes will be in short answer, long answer, fill in the blank, true or false, matching, or multiple choice form and will cover material from lectures, reading assignments, textbooks, labs, and projects. Unexcused absences from tests will result in a score of zero for the test. Instructors must be notified in advance if a student will not be present when a test is given.

### Weighted Categories

This course uses the following weighted categories in determining your final grade:

Packet Tracers – 40%

Hands-on Labs – 40%

Skills Exam – 20%

### Late Work

Timely submission of assignments, as in the workplace, is critical for success. Late assignment submissions will be accepted at the discretion of the instructor and are subject to a penalty of 20% per class beyond due date. Chapter tests, quizzes, presentations, class activities, and performance assessments are not eligible for late submission.

This course uses Desire 2 Learn (<https://d2l.washburn.edu>) for content delivery and grades. You may access your most current grade at any time by visiting the above URL.

### Attendance

Attendance is a key part of success in the program and attendance hours cannot be made up. However, there are times when a student will have to be absent. It is their responsibility to notify

the instructor of any absences. The hours that you were not in class cannot be replaced. You will miss valuable information shared either by your instructor or with other students. Many times you will miss "one-shot" opportunities for lessons, labs, or quizzes which cannot be made-up. Students are responsible for obtaining the work that can be made-up. As outlined in the student handbook several types of absences are "no-charge". The Director of Student Services will determine whether absences should be treated as such. No-charge absences do not count against your attendance record.

#### Dress Code:

All students will be expected to wear properly fitting apparel suitable to this area of work, often known as "business casual". All dress code policies of Washburn Tech will be followed with the following enhancements for this program:

1. All students will wear slacks while in class. Blue jeans are not appropriate for this program.
2. All shirts must have a collar and will be buttoned and tucked.
3. Sandals and open shoes are not appropriate.

Any student in violation of the dress code will be asked either to leave or spend the day in Student Services, forfeiting their daily points.

#### Disability

The Americans with Disabilities Act (ADA) Office is responsible for assisting in arranging accommodations and for identifying resources at Washburn Institute of Technology for persons with disabilities. Qualified students with disabilities MUST self-identify by completing an application. In addition students must provide appropriate medical documentation to the ADA coordinator to be eligible for accommodations. New requests for accommodations should be submitted at least two months or more prior to the date the accommodations are needed. However, please contact the ADA office as soon as a need may arise. Depending on the accommodation request, four to eight weeks lead time may be needed for timely and effective provision of accommodations.

The ADA Office coordinates and assists in arranging accommodations it deems appropriate for eligible students on a case-by-case basis. If you are a student with a disability that may substantially limit your ability to participate in any of our classes and you believe that you will need accommodations, it is your responsibility to contact: ADA Coordinator, Phone: 785.670.3365, Email: [gloria.christian@washburn.edu](mailto:gloria.christian@washburn.edu).

Washburn University [prohibits discrimination](#) on the basis of race, color, religion, age, national origin, ancestry, disability, sex, sexual orientation, gender identity, genetic information, veteran status, or marital or parental status. The following person has been designated to handle inquiries regarding the non-discrimination policies: Dr. Pamela Foster, Equal Opportunity Director/Title IX Coordinator, Washburn University, 1700 SW College Ave, Topeka, Kansas 66621, 785.670.1509, [eodirector@washburn.edu](mailto:eodirector@washburn.edu)

