# Networking I (CST 180, CRN 3637)

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| Instructor | Stacy Walker | Phone | (203) 285-2462 |
| Office | S301F | E-mail | swalker@gatewayct.edu |
| Office Hours | Tuesday and Thursday 10:30AM – 11:30PM |  |  |

### Day and Time:

Tuesday & Thursday

9:05AM – 10:25AM

### Text and Supplies:

Introduction to Networks Companion Guide

ISBN-13: 978-1-58713-316-9

Introduction to Networks Lab Manual

ISBN-13: 978-1-58713-312-1

Memory Stick

### Description:

This curriculum provides students with the skills needed to succeed in networking-related degree programs and helps them prepare for CCNA certification. It also helps students develop the skills necessary to fulfill the job responsibilities of network technicians, network administrators, and network engineers. It provides a hands-on introduction to networking and the Internet.

### Goals:

* Explain the importance of data networks and the Internet in supporting business communications and everyday activities
* Explain how communication works in data networks and the Internet
* Recognize the devices and services that are used to support communications across an

Internetwork

* Use network protocol models to explain the layers of communications in data networks
* Explain the role of protocols in data networks
* Describe the importance of addressing and naming schemes at various layers of data networks
* Describe the protocols and services provided by the application layer in the OSI and TCP/IP models and describe how this layer operates in various networks
* Analyze the operations and features of transport layer protocols and services
* Analyze the operations and feature of network layer protocols and services and explain the fundamental concepts of routing
* Design, calculate, and apply subnet masks and addresses to fulfill given requirements
* Describe the operation of protocols at the OSI data link layer and explain how they support communications
* Explain the role of physical layer protocols and services in supporting communications across data networks
* Explain fundamental Ethernet concepts such as media, services, and operation
* Employ basic cabling and network designs to connect devices in accordance with stated objectives
* Build a simple Ethernet network using routers and switches
* Use Cisco command-line interface (CLI) commands to perform basic router and switch configuration and verification
* Analyze the operations and features of common application layer protocols such as HTTP, Domain Name
* System (DNS), Dynamic Host Configuration Protocol (DHCP), Simple Mail Transfer Protocol (SMTP), Telnet, and FTP
* Utilize common network utilities to verify small network operations and analyze data traffic

### Resources:

www.netacad.com

### Grading:

The final grade for Networking I, CST-180, will be based on the following components. Registration for this course means that the student agrees to fulfill the requirements for this course. Students should make every effort to take the examinations and complete the laboratory projects and the homework assignments.

If a student is absent or late, the student is responsible for getting the course notes, handouts, and any laboratory assignments missed.

Component Weight Points

Lab Assignments 40% 400

Exams 30% 300

Final Exam 20% 200

Evaluative[[1]](#footnote-1) 10% 100

Student Grades shall be consistent with Gateway Community College’s Grading Policy. Students who are having difficulties with their course work and need assistance are strongly encouraged you to use the lab assistant that are provided.

Grading System

Gateway Community College’s values for grades awarded which are used for the calculation of grades, averages and related matters are as follows:

|  |  |  |
| --- | --- | --- |
| **Letter Grade** | **Point Ranges** | **Grade Point Value** |
| A | 950 - 1000 | 4.00 |
| A- | 900 - 949 | 3.667 |
| B+ | 890 – 899 | 3.333 |
| B | 810 – 889 | 3.000 |
| B- | 800 – 809 | 2.667 |
| C+ | 790 - 799 | 2.333 |
| C | 710 – 789 | 2.000 |
| C- | 700 – 709 | 1.667 |
| D+ | 690 – 699 | 1.333 |
| D | 610 – 679 | 1.000 |
| D- | 600 – 609 | .0667 |
| F | 0 - 599 | 0.000 |

### Course Policies:

Late Labs & Exams

***Projects must be turned in on time to receive points****.*

## Student Conduct in Class Policy

Any acts of classroom disruption that go beyond the normal rights of students to question and discuss with instructors the educational process relative to subject content will not be tolerated, in accordance with Gateway Community College’s Academic Code of Conduct as described in the Gateway Community College’s Student Handbook.

## Examination Policy

To prepare for examinations, attend lectures and read the chapters. Approx. 100 % of the questions will be taken directly from the reading material assigned. Review the Reference Summary at the end of each chapter for a summary of the main topics covered in each chapter in preparation for the tests.

## Incomplete Policy

Students will not be given an incomplete grade in the course without sound reason and documented evidence as described in the Gateway Community College’s Student Handbook. In any case, for a student to receive an incomplete, he or she must be passing and must have completed a significant portion of the course.

## Accessibility Statement:

Any student who feels s/he may need an adjustment based on the impact of a documented disability, please contact the office of Student Accessibility Services at 203-285-2231 in room S-202 to coordinate reasonable adjustments. Students then should contact the professor privately to ensure adjustments are received.

### Fall 2016 Schedule:

|  |  |  |  |
| --- | --- | --- | --- |
| **Week** | **Date** | **Chapter** | **Description** |
| Week 1 | 8/30 | Course Introduction |  |
|  | 9/1 |  |  |
| Week 2 | 9/6 | Chapter 1 | Exploring the Network |
|  | 9/8 |  |  |
| Week 3 | 9/13 | Chapter 2 | Configuring a Network Operating System |
|  | 9/15 |  |  |
| Week 4 | 9/20 | Chapter 3 | Network Protocols and Communications |
|  | 9/22 |  |  |
| Week 5 | 9/27 | Chapter 4 | Network Access |
|  | 9/29 |  |  |
| Week 6 | 10/4 | Chapter 5 | Ethernet |
|  | 10/6 |  |  |
| Week 7 | 10/11 | Chapter 6 | Network Layer |
|  | 10/13 |  |  |
| Week 8 | 10/18 | Chapter 7 | IP Addressing |
|  | 10/20 |  |  |
| Week 9 | 10/25 | Chapter 8 | Subnetting IP Networks |
|  | 10/27 |  |  |
| Week 10 | 11/1 | Chapter 9 | Transport Layer |
|  | 11/3 |  |  |
| Week 11 | 11/8 | Review Subnetting |  |
|  | 11/10 |  |  |
| Week 12 | 11/15 | Review Subnetting |  |
|  | 11/17 |  |  |
| Week 13 | 11/22 | Review Subnetting |  |
|  | 11/24 | No Class | Thanksgiving |
| Week 14 | 11/29 | Chapter 10 | Application Layer |
|  | 12/1 |  |  |
| Week 15 | 12/6 | Chapter 11 | Build a Small Network |
|  | 12/8 |  |  |
| Week 16 | 12/13 | Final Exam |  |

1. Evaluative includes class participation, and attendance. A number of unexcused absences and attending class late can result in a reduction of your grade by 10%. [↑](#footnote-ref-1)