

# GEORGIA COLLEGE & STATE UNIVERSITY COURSE SYLLABUS

## Introduction to Networking

<b>Semester:</b>	Spring	<b>Year:</b>	2010
<b>Course Title:</b>	Introduction to Networking	<b>Course #:</b>	CBIS 3213
<b>Instructor:</b>	Dr. Bryan Marshall	<b>Office:</b>	ATK 305 (Inside ATK 306)
<b>E-Mail:</b>	bryan.marshall@gcsu.edu	<b>Office Hours:</b>	MW 8:45 – 9:15 am
<b>Phone:</b>	478-445-2137		MW 11:45 – 2:00 pm
<b>Class Time:</b>	MW 3:30 - 4:45 pm		or by appointment
<b>Classroom:</b>	ATK 310		

### Catalog Description

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This course provides an in-depth knowledge of data communications and networking requirements, including networking and telecommunications technologies, hardware, and software. Emphasis is on the analysis and design of networking applications in organizations. Management of telecommunications networks, cost-benefit analysis, and evaluation of connectivity options. Students learn to evaluate, select, and implement different data network options.

### Topics Covered

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Networking media, Network construction, Local area networks, Wide area networks, Wireless networks, Intranet concepts, Internet and world-wide-web concepts, Message routing, Line contention, Network servers, Network management and control

### Course Outcomes

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Students should be able to:

1. Demonstrate a working knowledge of networking media.
2. Demonstrate a working knowledge of network hardware.
3. Demonstrate a working knowledge of network topologies and protocols.
4. Demonstrate a working knowledge of network administration including issues of privacy, security, reliability, and performance.
5. Perform team activities in establishing and configuring an operable local area network.
6. Demonstrate a working knowledge of the use of the Internet.
7. Demonstrate the ability to perform cost/benefit analysis of network requirements.
8. Design network solutions.

### Grading

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10 Labs	20%
10 Quizzes	10%
Test 1	25%
Test 2	25%
Final Project	20%

## Required Text

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Network+ Guide to Networks, Tamara Dean, 5<sup>th</sup> edition (2010) ISBN, 1-423-90245-9

## WebCT

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The class is available on WebCT. Students are held responsible for class information contained in WebCT.

## Fire Drill Procedures

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In the event of a fire signal students will exit the building in a quick and orderly manner through the nearest hallway exit. Learn the floor plan and exits of this building. Do not use elevators. Crawl on the floor if you encounter heavy smoke. Assist disabled persons and others if possible without endangering your own life. Assemble for a head count.

## Requests for Modifications

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Any student requiring instructional modifications due to a documented disability should make an appointment to meet with the instructor as soon as possible. An official letter from GC&SU documenting the disability will be expected in order to receive accommodations.

## Withdrawals

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The last day for withdrawal without academic penalty is **March 8<sup>th</sup>**.

## Attendance Policy

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Class attendance is extremely important to succeed in this course. Attendance is mandatory, meaning that you are expected to attend each class period. However, the professor understands that there will be times when personal issues are unavoidable and take priority. Therefore, each student will be allowed three (3) excused absences without penalty. Since students are allowed three excused absences, there is no need to contact the professor to explain an absence. If you are absent, it is your responsibility to obtain missed material from your peers, so establish contact with other students in the class immediately.

If for any reason more than three absences occur during the course of the semester, the student will receive a negative adjustment of one full letter grade. This means that if you have three excused absences from a physician and one unexcused absence you will receive a full letter grade reduction.

Attendance will be taken on random days and will be influenced by the “prisoner’s dilemma” game theory approach. This means that I am much more likely to take attendance when there are fewer students in attendance, and much less likely to take attendance if all students are present. Classes will start on time and you are expected to be at your seat at the beginning of class. You are in attendance when your name is called. If you are not in your seat when attendance is taken, you will not be given attendance for that day. If you need to leave class early, which I don’t recommend, you are required to notify me at the beginning of class. Failure to do so will result in the loss of attendance for that day.

**THE FOLLOWING COURSE OUTLINE PROVIDES A GENERAL PLAN FOR THE COURSE. DEVIATIONS MAY BE NECESSARY.**

<b>Date</b>	<b>Chapter</b>	
1/11 1/13	Chapter 1 – An Introduction to Networking	
<b>1/18</b>	<b>MLK Day --- No Class</b>	
1/20	Chapter 2 – Networking Standards and the OSI Model	<i>(Lab 1)</i>
1/25	Quiz 1 <b>(L1 Due)</b>	
1/27	Chapter 3 – Transmission Basics and Networking Media	<i>(Lab 2)</i>
2/1	Chapter 3 – Transmission Basics and Networking Media (cont)	
2/3	Quiz 2 <b>(L2 Due)</b> Chapter 4 – Introduction to TCP/IP Protocols	<i>(Lab 3)</i>
2/8	Chapter 4 – Introduction to TCP/IP Protocols (cont)	
2/10	Quiz 3 <b>(L3 Due)</b> Chapter 5 – Topologies and Ethernet Standards	<i>(Lab 4)</i>
2/15	Chapter 5 – Topologies and Ethernet Standards (cont)	
2/17	Quiz 4 <b>(L4 Due)</b> Chapter 6 – Network Hardware	<i>(Lab 5)</i>
2/22	Chapter 6 – Network Hardware (cont)	
2/24	Quiz 5 <b>(L5 Due)</b> Chapter 7 – WANs and Remote Connectivity	
3/1	Chapter 7 – WANs and Remote Connectivity (cont)	
<b>3/3</b>	<b>Exam 1 (Chapters 1-7)</b>	<b><i>(250 points)</i></b>
3/8	Chapter 8 – Wireless Networking	
3/10	Chapter 8 – Wireless Networking (cont)	
3/15	Quiz 6 --- Chapter 9 – Network Operating Systems	<i>(Lab 6- Linux / Win 2003)</i>
3/17	Chapter 9 – Network Operating Systems (cont)	
<b>3/22-26 Spring Break</b>		
3/29	Chapter 9 – Network Operating Systems (cont)	
3/31	Quiz 7 --- Campus Facility Tour	
4/5	<b>(L6 Due)</b> Chapter 10 – In-Depth TCP/IP Networking	<i>(Lab 7- Subnetting)</i>
4/7	Chapter 10 – In-Depth TCP/IP Networking (cont)	
4/12	Quiz 8 <b>(L7 Due)</b> Chapter 12 – Network Security	<i>(Lab 8-Security)</i>
4/14	Chapter 12 – Network Security (cont)	
4/19	Quiz 9 <b>(L8 Due)</b> Chapter 13 – Troubleshooting Network Problems	<i>(Lab 9-Troubleshooting)</i>
4/21	Chapter 13 – Troubleshooting Network Problems (cont)	
4/26	Quiz 10 <b>(L9 Due)</b> Chapter 14 – Ensuring Integrity and Availability	
4/28	Chapter 15 – Network Management	<i>(Lab 10-UPS Management)</i>
5/3	Chapter 15 – Network Management	<i>(Final Projects Due)</i>
<b>5/7</b>	<b>(L10 Due) Exam 2 (Chapters 1-15) @ 2:00 - 4:45 p.m.</b>	<b><i>(250 Points)</i></b>