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Department of Information Technology
ISSC341 Introduction to Networking
3 Credit Hours
8 Week Course
Prerequisite(s): None

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Instructor Information

Instructor: (biography)
Email:
Phone:
Office Hours:

Course Description (Catalog)

This course is a study of the evolution, the concepts, and the principles of local, distributed and enterprise networking. This course examines Network design, topologies, architecture, media, interface cards, protocols, problem resolution, communications, administration, operations, and resources. It introduces the student to the concepts of wireless networking, and web-based networks. This course also explores the Open Systems Interconnection (OSI) and the Transmission Control Protocol/Internet Packet (TCP/IP) reference models. This course also examines internetworking servers, and hardware and operating systems maintenance. Students will need access to Microsoft Internet Explorer 7.0 (or higher) with Outlook Express, MS Visio 2000 or higher, Java 2 Runtime, Phex 3.0.2.100, and FineCrypt 9.1. This software is not provided by the course material grant and must be purchased/provided by the student. [3 Semester Hours]
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CIW Foundations is a three-course series that teaches the essential, hands-on skills and knowledge that Internet professionals are expected to understand. The CIW Foundations series of courses prepares students to take the high-stakes CIW Foundations certification exam. Those who pass the CIW Foundations exam earn the highly respected CIW Associate certification, which is recognized throughout the industry as validating essential Internet skills for the workplace. The CIW Associate certification proves that an individual has evolved from being an Internet consumer to an Internet producer, capable of producing real-world Internet applications. A CIW Associate certificant can use common Internet-ready applications, can create properly formed HTML/XHTML documents, knows CGI and database essentials, and can troubleshoot networks.

The CIW Foundations three-course series are:
1. Internet Business Foundations prepares students to work effectively in today’s business environment.
2. Site Development Foundations teaches students essential Web page development skills.
3. Network Technology Foundations teaches essential networking technologies and skills, including TCP/IP, stable network creation, wireless networking and network troubleshooting. – This course covers this third portion of the Foundations required for all CIW Master and CIW Professional certifications.

Course Objectives

A successful student will fulfill the following learning objectives:

1. Identify network components and major network operating systems
2. Describe the packet creation process and explain the Open Systems Interconnection (OSI) reference model
3. Compare and contrast the functions of network protocols, and describe network transmission media and types, and identify network architecture and topologies, and describe the Internet architecture model and Internet Protocols
4. Explain the routing process, IP addressing, IP address changes, default subnet masks and the use of private IP addresses, and use diagnostics tools for troubleshooting TCP/IP networks
5. Identify and describe the functions and features of various internetworking server types; identify maintenance issues for common system components
6. Describe the characteristics of file system types and use system management tools
7. Identify and suggest corrective measures for operating system boot problems and application failures, and identify methods to remotely manage workstations; identify essential network security concepts
8. Explore career opportunities in the IT industry and discuss effective ways of communicating technical information to non-technical audiences

Course Delivery Method

This is an 8 week course delivered in the APUS Educator; via distance learning will enable students to complete academic work in a flexible manner, completely online. Course materials and access to an online learning management system will be made available to each student. Online assignments are due by the last day of each week and include Discussion Board questions (accomplished in groups through a threaded discussion board), examinations and quizzes (graded electronically), and individual assignments (submitted for review by the Faculty Member). Assigned faculty will support the students throughout this eight-week course.

Course Materials

Required Text
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Network Technology Foundations: Academic Student Guide CIW v5 Foundations Series

Recommended Web-based Readings

Software Requirements
1. Microsoft Office (MS Word, MS Excel, MS PowerPoint)
2. MS Office Visio (Visio will be used for diagramming networks)
3. Adobe Acrobat Reader (Click here for free download)
4. To be installed before class:
   a. Microsoft Windows XP Professional Service Pack 2 (typical installation)
   b. Microsoft Internet Explorer 7.0 with Outlook Express (typical installation)
5. To be installed by students during course labs:
   a. Java 2 Runtime Environment (binary provided in the C:\CIW\Network\LabFiles\Lesson01 folder)
   b. Phex 3.0.2.100 (binary provided in the C:\CIW\Network\LabFiles\Lesson01 folder)
   c. FineCrypt 9.1 (binary provided in the C:\CIW\Network\LabFiles\Lesson05 folder)

Disclaimer Statement: While this course uses CIW approved curriculum and is intended to teach the material tested on the exam, it is still the student’s responsibility to study and prepare appropriately for the exam. It is not an implication that the student is guaranteed to pass the exam by taking these courses.

Certifications: To earn the CIW Professional designation, students must pass the CIW Foundations 1D0-510 certification exam and the CIW Site Designer 1D0-420 or 1D0-520 certification exam.

To earn the Master CIW Designer designation, students must pass the CIW Foundations 1D0-510, the CIW Site Designer 1D0-420 or 1D0-520, and the CIW E-Commerce Designer 1D0-425 or 1D0-525 exams. All CIW exams are administered by Prometric Inc. or VUE.

To register for a CIW exam online, visit Prometric at www.2test.com/ or VUE at www.vue.com/.

For more information about CIW exams, visit www.CIWcertified.com/.

Visit www.ComputerPREP.com/catalog/assessprep.asp or call (602) 275-7700 for product and purchase information about currently available CIW AssessPREP tools.

CIW Foundations
The CIW Foundations exam validates the basic hands-on skills and knowledge that a professional is expected to understand and use. Foundational skills include basic knowledge of Internet technologies, network infrastructure, Web authoring using XHTML, and job skills such as project management.

Target Audience: The CIW Associate certification is ideal for all professionals who use the Internet. This prerequisite certification is also required for all levels of specialization in the CIW program.

Job Responsibilities: CIW Associates have mastered the common core of Internet knowledge, and apply these foundational skills to further specialization.
Exam Guide: Before taking the CIW Foundations exam (1D0-510), candidates should read the CIW v5 Foundations Exam Guide for 1D0-510.

Recommended Resources: The following CIW educational programs and materials are available for CIW exam candidates.

- CIW Authorized Academic Partners (CIW AAPs) or CIW Authorized Training Partners (CIW ATPs)
- Official CIW assessment and exam prep

Candidates who attend CIW Foundations educational programs use the following official CIW v5 curriculum titles:

- Internet Business Foundations (PDF)
- Site Development Foundations (PDF)
- Network Technology Foundations (PDF) (This course)

**Evaluation Procedures**

The grading will be based on five pre-assessment questionnaires (PAQs), five graded assignments, eight weekly discussion board postings, an individual project paper and a presentation, five open book quizzes, and a case study in week 8.

1. There will be five pre-assessment questionnaires (1% each) counting a total of 5% of the final grade. The pre-assessment questionnaires will follow each of the major milestones of the course and will be from the text. They are selected to assess the student's understanding before starting the new lesson. The pre-assessment questionnaires can be found under the Exams tab.

2. There will be five assignments (4% each) counting a total of 20% of the final grade. The assignments will follow each of the major milestones of the course. These assignments will be problems or questions from the text. They are a combination of Lesson Reviews and Lesson Activities and/or Labs. They are selected to provide the student with information to understand the concepts discussed. Assignments should be prepared in Microsoft Word and uploaded into the student folder by the due date. Visio diagrams should be incorporated within the Word document as part of the document.

3. There will be eight weekly discussion board postings you will need to respond to. Answers should be 2-3 paragraphs with a topic sentence that restates the question and supporting sentences using the terms, concepts, and theories from the required readings. Each answer should be a minimum of 250 words (about 6 or 7 sentences). You may attack, support or supplement other students’ answers using the terms, concepts and theories from the required readings. All responses should be a courteous paragraph that contains a topic sentence with good supporting sentences. You may respond multiple times with a continuous discussion with points and counter points. The key requirement is to express your idea and then support your position using the terms, concepts and theories from the required readings to demonstrate to me that you understand the material. The discussion board postings will count as 15% (2% for each discussion posting other than the first which counts as 1%) of the final grade.

4. The Quizzes will each be half an hour non-proctored tests. Quizzes count as 25% of the final grade. It will be a multiple choice, true-false, and/or fill-in the blanks tests and will be open book and open note.
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5. The case study will be a 500 word minimum essay. It will count as 20% of the final grade. The case study will be based upon the material you have read and studied during the course of the term. Please coordinate with the professor for any special arrangements.

6. There will be one project paper (10%) and presentation (5%) throughout the session, counts as 15% of the final grade. The content for the project paper is listed under the Week 7 of this syllabus.

All pre-assessment questionnaires, assignments, discussion board questions and tests are required by 12:00 midnight Eastern Time

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<tr>
<th>Grade Instruments</th>
<th>Points Possible</th>
<th>% of Final Grade</th>
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<tbody>
<tr>
<td>Pre-Assessments Questionnaire 1 – 5 (1 each)</td>
<td>5</td>
<td>5%</td>
</tr>
<tr>
<td>Assignment 1 – 5 (4 each)</td>
<td>20</td>
<td>20%</td>
</tr>
<tr>
<td>Discussion Board Posts 1 - 8 (1 W1, 2 each W2-8)</td>
<td>15</td>
<td>15%</td>
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<tr>
<td>Quizzes 1 – 5 (5 each)</td>
<td>25</td>
<td>25%</td>
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<tr>
<td>Project Paper and Presentation</td>
<td>15</td>
<td>15%</td>
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<tr>
<td>Week 8 Case Study</td>
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<td>20%</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>100 Points</td>
<td>100%</td>
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COURSE OUTLINE

<table>
<thead>
<tr>
<th>WEEK</th>
<th>DATES</th>
<th>LESSON SUBJECT</th>
<th>ASSIGNMENT – (*Graded)</th>
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<tbody>
<tr>
<td>1</td>
<td>Monday to Sunday of Week 1</td>
<td>Lesson 1: Introduction to Networking</td>
<td>Course Begins</td>
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<td>Required Contact Info to Professor</td>
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<td></td>
<td></td>
<td></td>
<td>Reading: Lesson 1</td>
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<td></td>
<td></td>
<td>*Disc: Week 1 Discussion</td>
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<td></td>
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<td></td>
<td>*PAQ 1</td>
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<tr>
<td>2</td>
<td>Monday to Sunday of Week 2</td>
<td>Lesson 1: Introduction to Networking (continued)</td>
<td>Reading: Lesson 1 continued</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>*Disc: Week 2 Discussion</td>
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<tr>
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<td></td>
<td>*Assignment 1: Lesson 1</td>
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<tr>
<td></td>
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<td></td>
<td>*Quiz 1</td>
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<tr>
<td>3</td>
<td>Monday to Sunday of Week 3</td>
<td>Lesson 2: TCP/IP Suite and Internet Addressing</td>
<td>Reading: Lesson 2</td>
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<td></td>
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<td></td>
<td>*Disc: Week 3 Discussion</td>
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<td>*Assignment 2: Lesson 2</td>
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<td>*Quiz 2</td>
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<tr>
<td></td>
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<td></td>
<td>*PAQ 2</td>
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<td>4</td>
<td>Monday to Sunday of Week 4</td>
<td>Lesson 3: Internetworking Servers</td>
<td>Reading: Lesson 3</td>
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<td>*Disc: Week 4 Discussion</td>
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<td>*Assignment 3: Lesson 3</td>
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<td>Lesson 4: Hardware and Operating System Maintenance</td>
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<td>*Disc: Week 5 Discussion</td>
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<td>*Assignment 4: Lesson 4</td>
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<td>*Quiz 4</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>*PAQ 4</td>
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<td>6</td>
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<td>Lesson 5: Network Security Personal Privacy Protection</td>
<td>Reading: Lesson 5</td>
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<td>*Disc: Week 6 Discussion</td>
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**Course Overview**

- **Course Deadlines/Milestones**
  - Participation in discussions is required for Week 1 through Week 8
  - End of Sixth Week: Lessons 1-5 completed, Assignments 1-5 submitted, PAQ 1-5 and Quizzes 1-5 due to Professor
  - End of Seventh Week: Project Paper and Project Presentation due to Professor
  - Eight Week: Case Study due to Professor

- **Grading Scale**
  Please see the student handbook to reference the University's grading scale.
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## Course Outline - by Week-by-Week

### Week 1 - Topic: Introduction to Networking

In this portion of Lesson 1 you will learn about networking basics and network protocols.

**Learning Objective(s):** Successful students will be able to:

- Identify and describe the functions of servers, workstations and hosts
- Identify major network operating systems and their respective clients
- Discuss packets and describe packet creation, and explain the OSI reference model
- Compare, contrast and describe the functions of network protocols, including TCP/IP

**Required Reading(s):** Lesson 1 of the textbook – pages 1-3 to 1-30

**Supplemental Readings:**

**Assignment(s):**

a) **Answer online Week 1 Discussion Board Question:** (1%)
   
   i. Provide a brief bio (job, time at AMU, educational goals, time zone, plus a phone contact, etc.).
   
   ii. Answer the questions regarding the Syllabus confirmation.
   
   iii. Respond to at least 2 students.

b) **Complete Lesson 1 Pre-Assessment Questions (PAQ 1) on page 1-3:** (1%)

### Week 2 - Topic: Introduction to Networking - continued

In this portion of Lesson 1 you will learn about LANs and WANs.

**Learning Objective(s):** Successful students will be able to:

- Describe the basics of LANs and WANs
- Identify and describe the function of NAPs
- Describe transmission media and types, including cabling, asynchronous and synchronous, simplex, half duplex, full duplex, baseband and broadband
- Identify network architectures, and describe basic network topologies and carrier systems

**Required Reading(s):** Lesson 1 of the textbook – pages 1-30 to 1-63

**Assignment(s):**

a) **Answer online Week 2 Discussion Board Question:** (2%)
   
   i. Does your company use both LAN and WAN technologies?
   
   ii. To your knowledge, is your network an Ethernet, token ring, fast Ethernet, 100VG-AnyLAN or gigabit Ethernet?
   
   iii. Could any of the technologies you learned in this lesson improve your current network’s performance?
   
   iv. Respond to at least 2 students.

b) **Assignment 1:** (4%)
   
   i. Complete Lesson 1 Review Questions
   
   ii. Complete Labs 1-1, 1-2, and 1-3
   
   iii. Put both in a Word document and post the document to the assignments area for Assignment 1

b) **Quiz 1:** Complete Quiz 1 (5%)
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Week 3 - Topic: TCP/IP Suite and Internet Addressing

This lesson will discuss the Internet architecture, common protocols used on the Internet, and Request for Comments (RFC) documents that define and reference Internet protocols. It will also cover IP addressing, addressing rules, reserved addresses and subnet masks. Finally, the lesson will conclude with a discussion of diagnostic tools used to troubleshoot TCP/IP networks.

Learning Objective(s): Successful students will be able to:
- Define and describe the Internet architecture model and various Internet protocols
- Describe the purpose of RFCs
- Explain the routing process
- Compare and contrast RIP with OSPF
- Describe port numbers and their functions
- Explain IP addressing, address classes, default subnet masks and the use of private IP addresses
- Define the TCP/IP properties needed to configure a typical workstation
- Describe various diagnostic tools for troubleshooting TCP/IP networks

Required Reading(s): Lesson 2 of the textbook – pages 2-3 to 2-40

Supplemental Readings:
IPAddressing: http://www.geocities.com/SiliconValley/Vista/8672/network/ipaddr.html

Assignment(s):

a) Answer online Week 3 Discussion Board Question: (2%)
   i. How do you think the term "Request for Comments" originated?
   ii. Investigate by locating, downloading and reading RFC 1000. Discuss your findings here.
   iii. Would you like to join the Internet Society and become a part of the standardization process?
   iv. Respond to at least 2 students.

b) Complete Lesson 2 Pre-Assessment Questions (PAQ 2) on page 2-2: (1%)

c) Assignment 2: (4%)
   i. Complete Lesson 2 Review Questions
   ii. Complete Labs 2-1, 2-2, and 2-3
   iii. Put both in a Word document and post the document to the assignments area for Assignment 2

d) Quiz 2: Complete Quiz 2 (5%)

Week 4 - Topic: Internetworking Servers

This lesson will discuss the network services provided through the TCP/IP Internet protocol.

Learning Objective(s): Successful students will be able to:
- Identify and describe the functions and features of various internetworking servers
- Describe how each type of internetworking server use TCP/IP suite protocols
- Describe access-security features of an HTTP server
- Define MIME, and explain how MIME types are used by HTTP and mail servers, the functions of DNS
- Define “daemon” and identify the functions of the Internet-related daemons

Required Reading(s): Lesson 3 of the textbook – pages 3-3 to 3-40

Assignment(s):

a) Answer online Week 4 Discussion Board Question: (2%)
   i. Which particular software products are used at your company?
   ii. Two popular Web servers are Apache and Microsoft IIS. Research both Web server products on the Internet to determine the best product for your company. Consider the Web server
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providing interoperability within the company’s existing infrastructure. Discuss your findings here.

iii. In the case where you already have a Web server, would it be difficult to migrate the current Web server to a new Web server?

iv. Respond to at least 2 students.

b) Complete Lesson 3 Pre-Assessment Questions (PAQ 3) on page 3-2: (1%)

c) Assignment 3: (4%)

i. Complete Lesson 3 Review Questions

ii. Complete Labs 3-1 and 3-2

iii. Put both in a Word document and post the document to the assignments area for Assignment 3

d) Quiz 3: Complete Quiz 3 (5%)

Week 5 - Topic: Hardware and Operating System Maintenance

This lesson will investigate failure points, troubleshooting techniques and tools, and perform periodic preventive maintenance (PM) in order to avoid failures, and other procedures that typically include device cleaning, general maintenance, and testing.

Learning Objective(s): Successful students will be able to:

• Identify the characteristics of motherboards, common IRQ, I/O address and DMA settings

• Identify IDE/ATA, EIDE/ATA-2, SATA and SCSI traits, NICs and common peripheral ports

• Describe the characteristics of file system types, describe the uses of file system management tools

• Identify and suggest corrective measures for operating system boot problems and application failures

• Identify methods to remotely manage and troubleshoot workstations

Required Reading(s): Lesson 4 of the textbook – pages 4-3 to 4-50

Assignment(s):

a) Answer online Week 5 Discussion Board Question: (2%)

i. Attempt to restart your computer in Safe mode (press the F8 key during the reboot process). When your desktop displays, note the differences in the Desktop between Normal mode and Safe mode. What are these differences?

ii. Display the Settings tab of the Display Properties dialog box (right-click the desktop and click Properties). What is your screen resolution?

iii. Open Windows Explorer and attempt to access a network drive. What happens?

After you have completed your analysis please make sure to restart your PC back with Normal mode.

iv. Respond to at least 2 students.

b) Complete Lesson 4 Pre-Assessment Questions (PAQ 4) on page 4-2: (1%)

c) Assignment 4: (4%)

i. Complete Lesson 4 Review Questions

ii. Complete Labs 4-1, 4-2, and 4-3

iii. Put both in a Word document and post the document to the assignments area for Assignment 4

d) Quiz 4: Complete Quiz 4 (5%)

Week 6 - Topic: Network Security and Personal Privacy Protection
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This lesson will present the importance of network security; explore network attack types and how to avoid them, viruses and worms and how to protect against them, and authentication and encryption. The final section of this class discusses Personal Privacy Protection.

Learning Objective(s): Successful students will be able to:
- Identify typical attacks on clients and procedures to counter each attack type.
- Recognize and avoid social engineering attacks.
- Distinguish among symmetric, asymmetric and hash encryption.
- Define authentication principles, including password resetting, password aging.
- Describe Virtual Private Networks (VPNs) and the purposes of remote access protocols, including Point-to-Point Tunneling Protocol (PPTP), Layer 2 Tunneling Protocol (L2TP).
- Distinguish among the following security zones: DMZ (including dual-homed and triple-homed firewalls), VLAN, intranet, extranet.
- Define fundamental PKI concepts.
- Identify the purpose of an uninterruptible power supply (UPS), and list common concerns and configuration parameters.
- Define phishing and pharming, and identify ways to avoid becoming a victim.
- Identify ways to avoid anti-social activity, including online stalking and cyberbullying.
- Use encryption technology to secure communications (e.g., e-mail encryption, password generators, password managers).

Required Reading(s): Lesson 5 of the textbook – pages 5-3 to 5-43

Assignment(s):
- Answer online Week 6 Discussion Board Question: (2%) 
  i. Explore cyber bullying and why it is an important topic for today’s teens and children.
  ii. State steps you can take to prevent cyber bullying and educate your kids about it.
  iii. Respond to at least 2 students.
- Complete Lesson 5 Pre-Assessment Questions (PAQ 5) on page 5-2: (1%)
- Assignment 5: (4%)
  i. Complete Lesson 5 Review Questions
  ii. Complete Activities 5-1, and 5-2
  iii. Put both in a Word document and post the document to the assignments area for Assignment 5
- Quiz 5: Complete Quiz 5 (5%)

Week 7 - Topics: Project Paper and Presentation

Assignment(s):
- Answer online Week 7 Discussion Board Question: (2%)
  i. Research a few of the proposed changes to SMTP and DNS that are designed to reduce or eliminate SPAM.
  ii. Respond to at least 2 students.
- Complete and submit the class Project Paper and Presentation – see details below (15%)
  **Project Paper and Presentation:** (Post them under Week 7 Assignment area as a Microsoft Word document (10%) and a Microsoft PowerPoint Presentation (5%). You must include at least ten references.
  **Details of the Project:**
  Research and select a current trend in the area of telecommunications. Prepare a 10-15 page paper in Microsoft Word (counts as 10% of the final grade) **AMU approved APA format (see writing expectations in the Policies section)** (350 words per page). At a minimum include the following:
STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

- Detailed description of the area researched
- Technology involved in the area
- Future trends in the area
- Example companies involved in the area
- Regulatory issues surrounding the area
- Global implications for the area
- References (minimum of 10)

i. Prepare a 10-12 slide Microsoft PowerPoint highlighting the content from the paper. (Counts as 5% of the final grade)

ii. You are only required to submit a final paper and presentation. However, during the previous six weeks, you will be assembling the research paper and presentation. Feel free to post questions or portions of the paper for review at any time as an email to your professor.

iii. You may use resources from the APUS Online Library, any library, government library, or any peer-reviewed reference (Wikipedia and any other publicly-reviewed source is not accepted). The paper must be at least 10 pages double-spaced, 1” margin all around, black 12 point fonts (Times New Roman, Arial, or Courier) with correct citations of all utilized references/sources, (pictures, graphics, etc are extra - allowed but extra for the minimum page count). The title page and references are also required but don’t count in the minimum page count. The PowerPoint of 10-12 slides is a summary of this paper. No new topics, ideas or concepts are introduced in the PowerPoint that is not included in the paper. A minimum of 10 references are needed. The paper will be subjected to checking against plagiarism.

iv. The required number of pages do not include title or references pages – although these must be includes

Week 8 - Topics: Course Case Study

Assignment(s):

a) Answer online Week 8 Discussion Board Question: (2%)
   i. Pick one topic from this class that most interested you. State the topic and your reasons for the choice.
   ii. Respond to at least 2 students.

b) Complete the Week 8 Case Study (20%)
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<table>
<thead>
<tr>
<th>Policies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please see the student handbook to reference all University policies. Quick links to frequently question asked about policies are listed below.</td>
</tr>
<tr>
<td>Drop/Withdrawal Policy</td>
</tr>
<tr>
<td>Plagiarism Policy</td>
</tr>
<tr>
<td>Extension Process and Policy</td>
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</tbody>
</table>

WRITING EXPECTATIONS
All written submissions should be submitted in a font and page set-up that is readable and neat. It is recommended that students try to adhere to a consistent format, which is described below.
- Typewritten in double-spaced format with a readable style and font and submitted inside the electronic classroom (unless classroom access is not possible and other arrangements have been approved by the professor).
- Arial 11 or 12-point font or Times New Roman styles.
- Page margins Top, Bottom, Left Side and Right Side = 1 inch, with reasonable accommodation being made for special situations and online submission variances.

CITATION AND REFERENCE STYLE
Assignments completed in a narrative essay or composition format must follow APA guidelines. This course will require students to use the citation and reference style established by the American Psychological Association (APA), in which case students should follow the guidelines set forth in Publication Manual of the American Psychological Association (5th ed.). (2001). Washington, D.C.: American Psychological Association.

LATE ASSIGNMENTS
Students are expected to submit classroom assignments by the posted due date and to complete the course according to the published class schedule. As adults, students, and working professionals I understand you must manage competing demands on your time. Should you need additional time to complete an assignment please contact me before the due date so we can discuss the situation and determine an acceptable resolution. Routine submission of late assignments is unacceptable and may result in points deducted from your final course grade.

DISCLAIMER STATEMENT
Course content may vary from the outline to meet the needs of this particular group.

<table>
<thead>
<tr>
<th>Academic Services</th>
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<tbody>
<tr>
<td>ONLINE LIBRARY RESEARCH CENTER &amp; LEARNING RESOURCES</td>
</tr>
<tr>
<td>The Online Library Resource Center is available to enrolled students and faculty from inside the electronic campus. This is your starting point for access to online books, subscription periodicals, and Web resources that are designed to support your classes and generally not available through search engines on the open Web. In addition, the Center provides access to special learning resources, which the University has contracted to assist with your studies. Questions can be directed to <a href="mailto:orc@apus.edu">orc@apus.edu</a>.</td>
</tr>
<tr>
<td><strong>Charles Town Library and Inter Library Loan:</strong> The University maintains a special library with a limited number of supporting volumes, collection of our professors’ publication, and services to search and borrow research books and articles from other libraries.</td>
</tr>
<tr>
<td><strong>Electronic Books:</strong> You can use the online library to uncover and download over 50,000 titles, which have been scanned and made available in electronic format.</td>
</tr>
<tr>
<td><strong>Electronic Journals:</strong> The University provides access to over 12,000 journals, which are available in electronic form and only through limited subscription services.</td>
</tr>
</tbody>
</table>
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- **Turnitin.com** is a tool to improve student research skills that also detect plagiarism. Turnitin.com provides resources on developing topics and assignments that encourage and guide students in producing papers that are intellectually honest, original in thought, and clear in expression. This tool helps ensure a culture of adherence to the University’s standards for intellectual honesty. Turnitin.com also reviews students' papers for matches with Internet materials and with thousands of student papers in its database, and returns an Originality Report to instructors and/or students.

- **Smarthinking**: Students have access to 10 free hours of tutoring service per year through Smarthinking. Tutoring is available in the following subjects: math (basic math through advanced calculus), science (biology, chemistry, and physics), accounting, statistics, economics, Spanish, writing, grammar, and more. Additional information is located in the Online Research Center. From the ORC home page, click on either the “Writing Center” or “Tutoring Center” and then click “Smarthinking.” All login information is available.

### Selected Bibliography

<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>SANS</td>
<td><em>Infosec reading room</em></td>
<td><a href="http://www.sans.org/rr/">http://www.sans.org/rr/</a></td>
</tr>
<tr>
<td>TechTarget.</td>
<td><em>Information security magazine</em></td>
<td><a href="http://informationsecurity.techtarget.com/">http://informationsecurity.techtarget.com/</a></td>
</tr>
</tbody>
</table>
Appendix A – Grading Rubric for Writing

All written assignments will be assessed according to this rubric. Note that a score of 0 may be assigned in any category where your work does not meet the criteria for the beginning level.

<table>
<thead>
<tr>
<th>APUS Assignment Rubric Undergraduate Level 300-400</th>
<th>EXEMPLARY LEVEL</th>
<th>ACCOMPLISHED LEVEL</th>
<th>DEVELOPING LEVEL</th>
<th>BEGINNING LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FOCUS/THESIS</strong></td>
<td>Student exhibits a defined and clear understanding of the assignment. Thesis is clearly defined and well constructed to help guide the reader throughout the assignment. Student builds upon the thesis of the assignment with well-documented and exceptional supporting facts, figures, and/or statements.</td>
<td>Establishes a good comprehension of topic and in the building of the thesis. Student demonstrates an effective presentation of thesis, with most support statements helping to support the key focus of assignment.</td>
<td>Student exhibits a basic understanding of the intended assignment, but the thesis is not fully supported throughout the assignment. While thesis helps to guide the development of the assignment, the reader may have some difficulty in seeing linkages between thoughts. While student has included a few supporting facts and statements, this has limited the quality of the assignment.</td>
<td>Exhibits a limited understanding of the assignment. Reader is unable to follow the logic used for the thesis and development of key themes. Introduction of thesis is not clearly evident, and reader must look deeper to discover the focus of the writer. Student's writing is weak in the inclusion of supporting facts or statements.</td>
</tr>
<tr>
<td><strong>CONTENT/SUBJECT KNOWLEDGE</strong></td>
<td>Student demonstrates proficient command of the subject matter in the assignment. Assignment shows an impressive level of depth of student’s ability to relate course content to practical examples and applications. Student provides comprehensive analysis of details, facts, and concepts in a logical sequence.</td>
<td>Student exhibits above average usage of subject matter in assignment. Student provides above average ability in relating course content in examples given. Details and facts presented provide an adequate presentation of student’s current level of subject matter knowledge.</td>
<td>The assignment reveals that the student has a general, fundamental understanding of the course material. Whereas, there are areas of some concerning in the linkages provided between facts and supporting statements. Student generally explains concepts, but only meets the minimum requirements in this area.</td>
<td>Student tries to explain some concepts, but overlooks critical details. Assignment appears vague or incomplete in various segments. Student presents concepts in isolation, and does not perceive to have a logical sequencing of ideas.</td>
</tr>
<tr>
<td><strong>CRITICAL THINKING SKILLS</strong></td>
<td>Student demonstrates a higher-level of critical thinking necessary for 300-400 level work. Learner provides a strategic approach in presenting examples of problem</td>
<td>Student exhibits a good command of critical thinking skills in the presentation of material and supporting statements. Assignment</td>
<td>Student takes a common, conventional approach in guiding the reader through various linkages and connections presented in</td>
<td>Student demonstrates beginning understanding of key concepts, but overlooks critical details. Learner is unable to apply information</td>
</tr>
<tr>
<td>ORGANIZATION OF IDEAS/FORMAT</td>
<td>WRITING CONVENTIONS (GRAMMAR &amp; MECHANICS)</td>
<td>USE OF</td>
<td></td>
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<tr>
<td>Student thoroughly understands and excels in explaining all major points. An original, unique, and/or imaginative approach to overall ideas, concepts, and findings is presented. Overall format of assignment includes an appropriate introduction (or abstract), well-developed paragraphs, and conclusion. Finished assignment demonstrates student's ability to plan and organize research in a logical sequence. Student uses at least of 5-7 references in assignment.</td>
<td>Student demonstrates an excellent command of grammar, as well as presents research in a clear and concise writing style. Presents a thorough, extensive understanding of word usage. Student excels in the selection and development of a well-planned research assignment. Assignment is error-free and reflects student's ability to prepare a high-quality academic assignment.</td>
<td>Student provides a high-caliber, Assignment presents an</td>
<td></td>
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<tr>
<td>Student explains the majority of points and concepts in the assignment. Learner demonstrates a good skill level in formatting and organizing material in assignment. Student presents an above average level of preparedness, with a few formatting errors. Assignment contains less than 5 resources.</td>
<td>Student provides an effective display of good writing and grammar. Assignment reflects student's ability to select appropriate word usage and present an above average presentation of a given topic or issue. Assignment appears to be well written with no more than 3-5 errors. Student provides a final written product that covers the above-minimal requirements.</td>
<td>Student demonstrates a basic</td>
<td></td>
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</tr>
<tr>
<td>Learner applies some points and concepts incorrectly. Student uses a variety of formatting styles, with some inconsistencies throughout the paper. Assignment does not have a continuous pattern of logical sequencing. Student uses less than 3 sources or references.</td>
<td>Assignment reflects basic writing and grammar, but more than 5 errors. Key terms and concepts are somewhat vague and not completely explained by student. Student uses a basic vocabulary in assignment. Student's writing ability is average, but demonstrates a basic understanding of the subject matter.</td>
<td>Student needs to develop</td>
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<tr>
<td>Assignment reveals formatting errors and a lack of organization. Student presents an incomplete attempt to provide linkages or explanation of key terms. The lack of appropriate references or source materials demonstrates the student's need for additional help or training in this area. Student needs to review and revise the assignment.</td>
<td>Topics, concepts, and ideas are not coherently discussed or expressed in assignments. Student's writing style is weak and needs improvement, along with numerous proofreading errors. Assignment lacks clarity, consistency, and correctness. Student needs to review and revise assignment.</td>
<td></td>
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<tr>
<td>COMPUTER TECHNOLOGY/APPLICATIONS</td>
<td>formatted assignment. Learner exhibits excellent use of computer technology in the development of assignment. Quality and appropriateness of stated references demonstrate the student’s ability to use technology to conduct applicable research. Given assignment includes appropriate word processing, spreadsheet and/or other computer applications as part of the final product.</td>
<td>above-average use of formatting skills, with less than 3 errors. Students has a good command of computer applications to format information and/or figures in an appropriate format. Student uses at least two types of computer applications to produce a quality assignment.</td>
<td>knowledge of computer applications. Appearance of final assignment demonstrates the student’s limited ability to format and present data. Resources used in assignment are limited. Student may need to obtain further help in the use of computer applications and Internet research.</td>
<td>better formatting skills. The student may need to take additional training or obtain help from the Educator Help Desk while preparing an assignment. Research and resources presented in the assignment are limited. Student needs to expand research scope. The number of formatting errors is not acceptable.</td>
</tr>
</tbody>
</table>
## Appendix B – Grading Rubric for Discussion Boards

All Discussion Board assignments will be assessed according to this rubric. Note that a score of 0 may be assigned in any category where your work does not meet the criteria for the beginning level.

<table>
<thead>
<tr>
<th>Category</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributes to the (VC) learning community</td>
<td>Posting is insightful, thorough and interesting. Posted prior to the due date adding thought provoking interaction among classmates. (3)</td>
<td>Posting is thorough and interesting but submitted on the due date not allowing for interaction among classmates or instructor. (2)</td>
<td>Posting is interesting but lacks insight and depth. (1)</td>
<td>Posting is uninteresting and/or too brief for the assignments. (0.5)</td>
</tr>
<tr>
<td>Demonstrates Understanding of the Assignment</td>
<td>Posting demonstrates thorough understanding of the reading assignment and is substantiated by two (2) or more examples from the textbook and/or appropriate website. (3)</td>
<td>Posting demonstrates an understanding of the reading assignment and is substantiated by at least one (1) example from the textbook and/or appropriate website. (2)</td>
<td>Posting demonstrates understanding of the reading assignment but is not substantiated by examples from the textbook and/or appropriate website. (1)</td>
<td>Posting demonstrates very little understanding of the reading assignment. (0.5)</td>
</tr>
<tr>
<td>Provides Substantive Responses and Replies to Other Postings</td>
<td>Actively engaged in the discussion forums with at least two (2) postings of other students in a manner that demonstrates substantive analysis and/or evaluation. (2)</td>
<td>Actively engaged in the discussion forum with at least two (2) postings of other students where one (1) of the postings demonstrates substantive analysis and/or evaluation while second demonstrates constructive analysis but is not of the same quality as required for an excellent rating. (1)</td>
<td>Makes at least two (2) responses but responses fail to demonstrate constructive analysis or are inadequate. (0.5)</td>
<td>Less than acceptable responses Does not respond or responses are not related to the topic (0)</td>
</tr>
<tr>
<td>Utilizes Correct Grammar, Mechanics, Spelling and Sentence Structure</td>
<td>Posting is polished generally free of errors in mechanics, spelling, usage and sentence structure. (2)</td>
<td>Posting is adequate but may contain some errors in mechanics, spelling, usage and sentence structure but errors do not interfere with understanding. (1)</td>
<td>Posting is polished but may contain minor errors in mechanics, spelling, usage and sentence structure. (0.5)</td>
<td>Posting has numerous errors in mechanics, usage, spelling and sentence structure. Errors interfere with the readability.(0.25)</td>
</tr>
<tr>
<td><strong>Total Points</strong></td>
<td><strong>10/10</strong></td>
<td><strong>6/10</strong></td>
<td><strong>3/10</strong></td>
<td><strong>0.75/10</strong></td>
</tr>
</tbody>
</table>