ITS310: Introduction to Computer-Based Systems

Credit Hours: 3

Contact Hours: This is a 3-credit course, offered in accelerated format. This means that 16 weeks of material is covered in 8 weeks. The exact number of hours per week that you can expect to spend on each course will vary based upon the weekly coursework, as well as your study style and preferences. You should plan to spend 14-20 hours per week in each course reading material, interacting on the discussion boards, writing papers, completing projects, and doing research.

Course Description and Outcomes

Course Description:
This course is an in-depth study of personal computer hardware, peripherals, and interfaces. It prepares students for the Essentials portion of the CompTIA A+ certification exam. Students are prepared to diagnose, troubleshoot, and maintain personal computer systems. It also provides a detailed overview of common peripheral devices and discusses how to connect them to personal computers. A simulated lab environment is incorporated into the course.

Course Overview:
ITS310 is the first course in a series of courses in computer technology at CSU-Global wherein students learn about computer components, their functions, and troubleshooting. In this course, students are introduced to computer hardware (power supply, system unit containing motherboard, CPU, memory, buses, and ports), communication components and transmission channels (wired and wireless transmission media), and Windows desktop operating systems. Students also learn to assemble, configure hardware, install software and network components, as well as troubleshoot hardware, software, and computer network and security issues.

This computer course not only prepares the students for CompTIA A+ 220-801 exam covering computer technology fundamentals and LabSim PC Pro exam but also equips them with the knowledge and skills to manage helpdesk functions and small to medium business IT operations. Students gain mastery of these skills by performing simulated hands-on exercises in LabSim.

At the successful completion of this course, students will be able to install, manage, repair, and troubleshoot PC hardware and Windows client operating systems, the real world skills employed by PC technicians in daily tasks. The course, thus, prepares students for entry-level computer technician jobs.

Course Learning Outcomes:

1. Apply common preventative maintenance techniques in given information technology scenarios.
2. Explain and interpret common operating system problems and their causes.
3. Diagnose common hardware symptoms and identify their causes and remedies.
4. Identify and implement one or more security features that address viruses, malware, and other threats.
5. Explain and elaborate on basic security concepts and technologies.

**Participation & Attendance**

Prompt and consistent attendance in your online courses is essential for your success at CSU-Global Campus. Failure to verify your attendance within the first 7 days of this course may result in your withdrawal. If for some reason you would like to drop a course, please contact your advisor.

Online classes have deadlines, assignments, and participation requirements just like on-campus classes. Budget your time carefully and keep an open line of communication with your instructor. If you are having technical problems, problems with your assignments, or other problems that are impeding your progress, let your instructor know as soon as possible.

**Course Materials**

Textbook Information is located in the CSU-Global Booklist on the Student Portal.

**Course Schedule**

**Due Dates**
The Academic Week at CSU-Global begins on Monday and ends the following Sunday.

- Discussion Boards: The original post must be completed by Thursday at 11:59 p.m. MT and Peer Responses posted by Sunday 11:59 p.m. MT. Late posts may not be awarded points.
- Opening Exercises: Take the opening exercise before reading each week’s content to see which areas you will need to focus on. You may take these exercises as many times as you need. The opening exercises will not affect your final grade.
- Mastery Exercises: Students may access and retake mastery exercises through the last day of class until they achieve the scores they desire.
- Critical Thinking: Assignments are due Sunday at 11:59 p.m. MT.

<table>
<thead>
<tr>
<th>Week #</th>
<th>Readings</th>
<th>Assignments</th>
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<tbody>
<tr>
<td>1</td>
<td>Chapters 1, 2, 3, 4, &amp; 5 in Guide to Managing and Maintaining Your PC, LabSim Online Labs. (2012). TestOut PC Pro: 1.1 Hardware Basics 2.3 PC Tools 2.4 PC Maintenance 2.5 Troubleshooting Overview 3.2 Power Supply 4.1 Peripheral Devices 4.2 Computer Ports</td>
<td>Discussion (25 points) Opening Exercise (0 points) Mastery Exercise (10 points) Critical Thinking (60 points)</td>
</tr>
<tr>
<td>2</td>
<td>Chapter 7 in Guide to Managing and Maintaining Your PC</td>
<td>Discussion (25 points)</td>
</tr>
</tbody>
</table>
| 3 | LabSim Online Labs. (2012). *TestOut PC Pro*: 
1.1.1 Operating Systems 
1.1.2 Operating System Facts 
2.5.1 Troubleshooting Process 
2.5.2 Troubleshooting Process Facts 
LabSim Online Labs. (2012). *TestOut PC Pro*: 
2.3.1 PC Toolkits 
2.3.2 Tool Facts 
13.1.1 Common Motherboard, RAM and CPU Issues 
13.1.2 Troubleshooting System Power 
13.1.3 Troubleshooting Power Supply Problems 
13.1.4 CPU Troubleshooting 
13.1.8 Memory Troubleshooting 
13.2.1 Common Storage Issues 
13.2.2 Storage Troubleshooting Facts 
13.3.3 Video Troubleshooting 
13.3.4 Video Troubleshooting Facts |
| 4 | Chapters 15 & 16 in *Guide to Managing and Maintaining Your PC* 
LabSim Online Labs. (2012). *TestOut PC Pro*: 
I: 6.1.1-6.1.3 Network Overview, Facts and Types: Peer-to-peer Networks, Client-server Networks 
6.1.4-6.15 Network Topologies: Bus, Star, Ring, Mesh 
6.2.1-6.2.6 Network Hardware: Hub, Switch, Bridge, Router, Network Adapters 
6.5.1-6.5.3 IP Addressing and Configuration: TCP/IP protocols, TCP/IP configuration methods, IP settings 
6.3.1 -6.3.5 and 6.9.1 -6.9.7 Networking wireline and wireless Media 
LabSim Online Labs. (2012). *TestOut PC Pro*: 
12.1.1-12.1.3 Computer Security Best Practices 
12.2.1-12.2.6 Computer Physical Security 
12.4.1-12.4.4 Computer BIOS Security 
12.5.1-12.5.6 Malware Protection 
12.6.1-12.6.9 & 12.7.4 Authentication and Encryption 
Mastery Exercise (10 points) 
Critical Thinking (60 points) 
Portfolio Project Milestone (50 Points) | Discussion (25 points) 
Opening Exercise (0 points) 
Mastery Exercise (10 points) 
Critical Thinking (60 points) | Discussion (25 points) 
Opening Exercise (0 points) 
Mastery Exercise (10 points) 
Critical Thinking (60 points) | Discussion (25 points) 
Opening Exercise (0 points) 
Mastery Exercise (10 points) 
Critical Thinking (70 points) |


| 6 | Chapters 19 & 20 in *Guide to Managing and Maintaining Your PC*  
|   | LabSim Online Labs. (2012). *TestOut PC Pro*:  
|   | 8.1.1-8.15 Notebook Computers  
|   | 8.2.1-8.26 Notebook Components  
|   | 7.3.1-8.3.5 Notebook Power Management  
|   | 8.4.1-8.4.8 Mobile Devices |

| 7 | Chapter 11 in *Guide to Managing and Maintaining Your PC*  
|   | LabSim Online Labs. (2012). *TestOut PC Pro*:  
|   | 9.1.1-9.1.7 Windows System Tools  
|   | 9.3.1-9.3.3 Performance Monitors |

| 8 | Chapter 12 in *Guide to Managing and Maintaining Your PC*  
|   | LabSim Online Labs. (2012). *TestOut PC Pro*:  
|   | 13.5.1-13.5.9 Operating Systems Troubleshooting  
|   | 13.6.1-13.6.4 Windows Recovery  
|   | 13.7.1-13.7.11 System Errors |

Assignment Details

This course includes the following assignments/projects:

**Module 1**

**CRITICAL THINKING ASSIGNMENT (60 points)**

This course only offers one Critical Thinking assignment option for each module.

**Critical Thinking: Set Up a Computer**

You were provided with the LabSim URL and login credentials before the start of the course via CSU-Global email. Use your login credentials to access your LabSim exam for the Module 1 Critical Thinking assignment.

Complete the following LabSim simulation: 1.3.5 Set up a Computer.

Each lab simulation will be graded automatically in LabSim. Your instructor will then convert your assignment score in a Critical Thinking Rubric. Refer to the Critical Thinking Rubric available in the Module 1 Materials Folder for grading details.

When you have finished LabSim Simulations assigned for this Critical Thinking assignment, take a screenshot of the final screen of each Simulation to certify that you have completed all tasks.

Paste the final screen images into a Word document with your name, date, school name, section, course name, and instructor name and submit the assignment. Format your document according to the *CSU-Global Guide to Writing and APA Requirements.*
**Note:** Either Internet Explorer or Mozilla Firefox is required for LabSim assignments. See the assignment prompt in Schoology for more information and steps on how to access LabSim with Google Chrome.

**PORTFOLIO PROJECT REMINDER**
You have a choice between two Portfolio Projects. Do not do both projects.

**Portfolio Project Option #1: Phase 1 of IT Infrastructure for an Educational Institution**

For the Portfolio Project, you will have one of two projects from which to choose. For Option #1, you will develop a technology project proposal that outlines a technology plan for a small firm. In Option #1, you have been hired as an IT expert by a small firm to set up an office for 20 staff members, half of whom will work with desktop computers and the remaining with laptop computers using wireless networks. The office would use one networked laser printer, accessible from both the desktop and laptop computers. The desktop computers will use a wired network, while the laptop computers will employ a wireless network to print and access the Internet.

In Modules 1, 3, 5, and 7 you will have reminders regarding what you should work on, and in Modules 2, 4, 6, and 8 you will submit work and receive feedback from your instructor.

In Module 1, start making a list of computer hardware (desktop and laptop computers), peripherals, and network components (wired and wireless) with specifications required to set up the proposed business office. Include the following:

- Type of power supply
- Type of motherboard
- Type of CPU and memory
- Types of storage and their capacities
- Types of network interface cards (wired and wireless)
- Type and specifications for laser printers
- Types of expansion cards (if needed) for expanding ports
- Types of monitors (CRT, LCD) and specifications
- Specifications for laptop computers
- Any other required hardware component(s).

Save this list and use it when you develop and submit your Portfolio Project Milestone in Module 2.

**Portfolio Project Option #2: Phase 1 of IT Infrastructure for an Educational Institution**

For the Portfolio Project you will choose one of two projects. For Option #2, you have been hired as an IT manager for a new campus to set up the IT infrastructure over a six-month period in four phases. An educational institution is setting up a new campus which will house classrooms, offices, a library, a student lounge, registrar’s office, and an academic support center for students.

In Modules 1, 3, 5, and 7 you will have reminders regarding what you should work on, and in Modules 2, 4, 6, and 8 you will submit work and receive feedback from your instructor.

In Module 1, start making a list of computer hardware (desktop and laptop computers), peripherals, and network components (wired and wireless) with specifications required to set up the proposed campus. Include the following:

- Type of power supply
- Type of motherboard
- Type of CPU and memory
- Types of storage and capacities
- Types of network interface cards (wired and wireless)
• Type and specifications for laser printers
• Types of expansion cards (if needed) for expanding ports
• Types of monitors (CRT, LCD) and specifications
• Specifications for laptop computers
• Any other required hardware component(s).

Save this list and use it when you develop and submit your Portfolio Project Milestone in Module 2.

Module 2

CRITICAL THINKING ASSIGNMENT (60 points)
This course only offers one Critical Thinking assignment option for each module.

Critical Thinking: 1.4.5 LabSim Exam

You were provided with the LabSim URL and login credentials before the start of the course via CSU-Global email. Use your login credentials to access your LabSim exam for the Module 2 Critical Thinking assignment.

Complete the following in the LabSim Exam: 1.4.5 LabSim Exam Questions.

Each lab simulation will be graded automatically in LabSim. Your instructor will then convert your assignment score in a Critical Thinking Rubric. Refer to the Critical Thinking Rubric available in the Module 2 Materials Folder for grading details.

When you have finished the 1.4.5 LabSim Exam Questions, take a screenshot of the final score screen (exam report) to certify that you have completed the exam.

Paste the final screen image into a Word document with your name, date, school name, section, course name, and instructor name and submit the assignment. Format your document according to the CSU-Global Guide to Writing and APA Requirements.

Note: Either Internet Explorer or Mozilla Firefox is required for LabSim assignments. See the assignment prompt in Schoology for more information and steps on how to access LabSim with Google Chrome.

PORTFOLIO PROJECT MILESTONE (50 points)
Complete the Milestone that corresponds with the Portfolio Project option that you selected. Do not complete both options. Identify your Portfolio Project choice in the title of your document.

Portfolio Project Option #1: Phase 1 of IT Infrastructure for a Small Firm

In Option #1, you have been hired as an IT expert by a small firm to set up an office for 20 staff members, half of whom will work with desktop computers and the remaining with laptop computers using wireless networks. The office will use one networked laser printer, accessible from both the desktop and laptop computers. The desktop computers will use a wired network, while the laptop computers will employ wireless network to print and access the Internet.

In Module 2, you will complete Phase 1 of the assignment:

• Statement of the Problem or Need: Based on your review of the IT system, write a description of the purpose/need/rationale for the IT project at the business office. What problem(s) are you planning to solve at the business office?
• Project Deliverables: Write a description of the necessary hardware components and software to set up computer systems for the business office. Phase 1 of the Portfolio Project is due in Module 2.
Last week you started making a list of computer hardware (desktop and laptop computers), peripherals, and network components (wired and wireless) with specifications required to set up the proposed business office. Include the following as part of the project deliverables for submission in Module 2:

- Type of power supply
- Type of motherboard
- Type of CPU and memory
- Types of storage and capacities
- Types of network interface cards (wired and wireless)
- Types and specifications for printers and scanners
- Types of expansion cards (if needed) for expanding ports
- Types of monitors (CRT, LCD) and specifications
- Specifications for laptop computers
- Any other required hardware component(s) of the items.

Select the most appropriate computer client operating system (COS) with reasons for its selection. Include the following (at minimum) as part of the project deliverables:

- Type of Windows operating system
- 32-bit or 64-bit version
- Video and printers support
- Network and sharing features
- Windows help and support
- Any other relevant features of the selected COS.

Your Module 2 Portfolio Project Milestone should meet the following requirements:

- Three to four pages in length, not including cover and reference pages.
- Formatted according to the CSU-Global Guide to Writing and APA Requirements.
- Cite a minimum of three sources, two of which should be academic peer-reviewed scholarly sources to support your responses, in addition to your textbook. The CSU-Global library is a great place to find these resources.

Refer to the Portfolio Project Rubric available in the Module 2 Materials Folder for information on grading details.

Portfolio Project Option #2: Phase 1 of IT Infrastructure for an Educational Institution

For Option #2, you have been hired as an IT manager for a new campus to set up the IT infrastructure over a six-month period in four phases. An educational institution is setting up a new campus which will house classrooms, offices, a library, a student lounge, registrar’s office, and an academic support center for students.

In Module 2, you will complete Phase 1 of the assignment:

- **Statement of the Problem or Need**: Based on your review of the IT system, write a description of the purpose/need/rationale for the IT project at the campus. What problem(s) are you planning to solve at the campus?
- **Project Deliverables**: Write a description of the necessary hardware components and software to set up computer systems for the educational institution. Phase 1 of the Portfolio Project is due in Module 2.

Last week you started making a list of computer hardware (desktop and laptop computers), peripherals, and network (wired and wireless) components with specifications required to set up the proposed business office. Include the following as part of the project deliverables for submission in Module 2:

- Type of power supply
- Type of motherboard
• Type of CPU and memory
• Types of storage and capacities
• Types of network interface cards (wired and wireless)
• Type and specifications for laser printers
• Types of expansion cards (if needed) for expanding ports
• Types of monitors (CRT, LCD) and specifications
• Specifications for laptop computers
• Any other required hardware component(s) of the items.

Select the most appropriate computer client operating system (COS) with reasons for its selection. Include the following (at minimum) as part of the project deliverables:

• Type of Windows operating system
• 32-bit or 64-bit version
• Video and printer support
• Network and sharing features
• Windows help and support
• Any other relevant features of the selected COS.

Your Module 2 Portfolio Project Milestone should meet the following requirements:

• Three to four pages in length, not including cover and reference pages.
• Formatted according to the CSU-Global Guide to Writing and APA Requirements.
• Cite a minimum of three sources, two of which should be academic peer-reviewed scholarly sources to support your responses, in addition to your textbook. The CSU-Global library is a great place to find these resources.

Refer to the Portfolio Project Rubric available in the Module 2 Materials Folder for information on grading details.

Module 3

CRITICAL THINKING ASSIGNMENT (60 points)
This course only offers one Critical Thinking assignment option for each module.

Critical Thinking: 2.3.3 LabSim Exam

You were provided with the LabSim URL and login credentials before the start of the course via CSU-Global email. Use your login credentials to access your LabSim exam for the Module 3 Critical Thinking assignment.

Complete the following in the LabSim Exam: 2.3.3 LabSim Exam Questions.

Each lab simulation will be graded automatically in LabSim. Your instructor will then convert your assignment score in a Critical Thinking Rubric. Refer to the Critical Thinking Rubric available in the Module 3 Materials Folder for grading details.

When you have finished the 2.3.3 LabSim Exam Questions, take a screenshot of the final score screen (exam report) to certify that you have completed the exam.

Paste the final screen image into a Word document with your name, date, school name, section, course name, and instructor name and submit the assignment. Format your document according to the CSU-Global Guide to Writing and APA Requirements.

Note: Either Internet Explorer or Mozilla Firefox is required for LabSim assignments. See the assignment prompt in Schoology for more information and steps on how to access LabSim with Google Chrome.
Module 4

CRITICAL THINKING ASSIGNMENT (60 points)
This course only offers one Critical Thinking assignment option for each module.

Critical Thinking: 6.1.6 LabSim Exam

You were provided with the LabSim URL and login credentials before the start of the course via CSU-Global email. Use your login credentials to access your LabSim exam for the Module 4 Critical Thinking assignment.

Perform the following LabSim Exam: 6.1.6 LabSim Exam Questions.

Each lab simulation will be graded automatically in LabSim. Your instructor will then convert your assignment score in a Critical Thinking Rubric. For more information on grading requirements, refer to the Critical Thinking rubric in the Module 4 Materials folder.

When you have finished the 6.1.6 LabSim Exam Questions, take a screenshot of the final score screen (exam report) to certify that you have completed the exam.

Paste the final screen image into a Word document with your name, date, school name, section, course name, and instructor name and submit the assignment. Format your document according to the CSU-Global Guide to Writing and APA Requirements.

Note: Either Internet Explorer or Mozilla Firefox is required for LabSim assignments. See the assignment prompt in Schoology for more information and steps on how to access LabSim with Google Chrome.

PORTFOLIO PROJECT MILESTONE (50 points)
Complete the Milestone that corresponds with the Portfolio Project option that you selected. Do not complete both options. Identify your Portfolio Project choice in the title of your document.

Portfolio Project Option #1: Phase 2 of IT Infrastructure for a Small Firm

In Option #1 you have been hired as an IT expert by a small firm to set up an office for 20 staff members, half of whom will work with desktop computers, and the remaining with laptop computers using wireless networks. The office will use one networked laser printer accessible both from the desktop and laptop computers. The desktop computers will use a wired network, while the laptop computers will employ a wireless network to print and access the Internet.

In Module 4 you will submit Phase 2 of the assignment. Phase 2 should include the following:

- **Project Beneficiaries:** Write a description of who will derive direct benefit from the project and how they will benefit.
- **Project Deliverables:** Write a description of the computer network hardware necessary to set up the computer networks and the necessary software and protocols.

Update your project deliverables section by adding the following features:

- Type of NIC (wired or wireless)
- Routers or Wireless Access Points or both
- Cables and connectors to implement a physical network
- Any other needed network hardware
- Physical and logical network topologies
- IP versions (IPv4 or IPv6) and why
Portfolio Project Option #2: IT Infrastructure for an Educational Institution

For Option #2, you have been hired as an IT manager for a new campus to set up the IT infrastructure over a six-month period in four phases. An educational institution is setting up a new campus which will house classrooms, offices, a library, a student lounge, registrar’s office, and an academic support center for students.

Phase 2 will include the following:

- **Project Beneficiaries:** Write a description of who will derive direct benefit from the project and how they will benefit.
- **Project Deliverables:** Write a description of the computer network hardware necessary to set up the computer networks and the necessary software and protocols.

Update your project deliverables section by adding the following features:

- Type of NIC (wired or wireless)
- Routers or Wireless Access Points or both
- Cables and connectors to implement a physical network
- Any other needed network hardware
- Physical and logical network topologies
- IP versions (IPv4 or IPv6) and why
- IP address pool for the network
- DNS and DHCP
- Any other network software component.

Your paper should meet the following requirements:

- Three to four pages in length, not including cover and reference pages.
- Formatted according to the **CSU-Global Guide to Writing and APA Requirements**.
- Cite a minimum of three sources, two of which should be academic peer-reviewed scholarly sources to support your responses, in addition to your textbook. The CSU-Global library is a great place to find these resources.

Refer to the Portfolio Rubric available in the Module 4 Materials folder for information on grading details.
Critical Thinking: 12.9.7 LabSim Exam

You were provided with the LabSim URL and login credentials before the start of the course via CSU-Global email. Use your login credentials to access your LabSim exam for the Module 5 Critical Thinking Assignment.

Complete the following in the LabSim Exam: 12.9.7 LabSim Exam questions.

Each lab simulation will be graded automatically in LabSim. Your instructor will then convert your assignment score in a Critical Thinking Rubric. Refer to the Critical Thinking Rubric available in the Module 5 Materials folder for grading details.

When you have finished the 12.9.7 LabSim Exam Questions, take a screenshot of the final score screen (exam report) to certify that you have completed the exam.

Paste the final screen image into a Word document with your name, date, school name, section, course name, and instructor name and submit the assignment. Format your document according to the CSU-Global Guide to Writing and APA Requirements.

Note: Either Internet Explorer or Mozilla Firefox is required for LabSim assignments. See the assignment prompt in Schoology for more information and steps on how to access LabSim with Google Chrome.

Module 6

CRITICAL THINKING ASSIGNMENT (60 points)
This course offers only one Critical Thinking assignment option for each module.

Critical Thinking: 8.2.77 LabSim Exam

You were provided with the LabSim URL and login credentials before the start of the course via CSU-Global email. Use your login credentials to access your LabSim exam for the Module 6 Critical Thinking assignment.

Complete the following in the LabSim Exam: 8.2.77 LabSim Exam Questions.

Each lab simulation will be graded automatically in LabSim. Your instructor will then convert your assignment score in a Critical Thinking Rubric. Refer to the Critical Thinking Rubric available in the Module 6 Materials folder for grading details.

When you have finished the 8.2.77 LabSim Exam Questions, take a screenshot of the final score screen (exam report) to certify that you have completed the exam.

Paste the final screen image into a Word document with your name, date, school name, section, course name and instructor name, and submit the assignment.

Format your document according to the CSU-Global Guide to Writing and APA Requirements.

Note: Either Internet Explorer or Mozilla Firefox is required for LabSim assignments. See the assignment prompt in Schoology for more information and steps on how to access LabSim with Google Chrome.

PORTFOLIO PROJECT MILESTONE (50 points)
Complete the Milestone that corresponds with the Portfolio Project option that you selected. Do not complete both options. Identify your Portfolio Project choice in the title of your document.

Portfolio Project Option #1: Phase 3 of IT Infrastructure for a Small Firm
In Option #1 you have been hired as an IT expert by a small firm to set up an office for 20 staff members, half of whom will work with desktop computers, and the remaining with laptop computers using wireless networks. The office will use one networked laser printer, accessible from both the desktop and laptop computers. The desktop computers will use a wired network, while the laptop computers will employ a wireless network to print and access the Internet.

In Module 6, you are submitting Phase 3 of the assignment.

- **Assumptions and Constraints**: Write a description of any assumptions and constraints regarding the project. Are there any assumptions made so far or constraints identified in the project? Are there any constraints or anything that would restrict the ability to achieve the IT project objectives successfully?
- **Project Deliverables**: Write a description of what is necessary to acquire and install the computer and network security hardware and software. Phase 3 of the Portfolio Project is due in Module 6.

Select the appropriate security measures (hardware and software) to be implemented on the business network. Include the following with their features in the project deliverables section:

- Firewalls (hardware and software options)
- Network Intrusion Detection Systems
- Antivirus software
- Windows built-in security features
- Any other network security hardware or software

Describe the security practices for your business operation, such as the following:

- Security policies for your business
- Password use policies
- Authentication technologies
- Encryption technologies
- Social engineering awareness
- Updating security software and installing security patches.
- Data disposal and destruction
- Wireless security measures.

Your paper should meet the following requirements:

- Three to four pages in length, not including cover and reference pages.
- Formatted according to the CSU-Global Guide to Writing and APA Requirements.
- Cite a minimum of three sources, two of which should be academic peer-reviewed scholarly sources to support your responses, in addition to your textbook. The CSU-Global library is a great place to find these resources.

Refer to the Portfolio Rubric available in the Module 6 Materials folder for information on grading details.

**Portfolio Project Option #2: Phase 3 of IT Infrastructure for an Educational Institution**

For Option #2 you have been hired as an IT manager for a new campus to set up the IT infrastructure over a six-month period in four phases. An educational institution is setting up a new campus which will house classrooms, offices, a library, a student lounge, registrar’s office, and an academic support center for students.

In Module 6, you are submitting Phase 3 of the assignment.
• **Assumptions and Constraints:** Write a description of any assumptions and constraints regarding the project. Are there any assumptions made so far or constraints identified in the project? Are there any constraints or anything that would restrict the ability to achieve the IT project objectives successfully?

• **Project Deliverables:** Write a description of what is necessary to acquire and install the computer and network security hardware and software. Phase 3 of the Portfolio Project is due in Module 6.

For this assignment, you may want to consider what appropriate security measures (hardware and software) you should implement in the campus network. Include the following with their features in the project deliverables section:

- Physical security measures
- Firewalls (hardware and software options)
- Network Intrusion Detection Systems
- Antivirus software
- Windows built-in security features
- Any other network security hardware or software.

Describe the security practices for the new campus. Include the following:

- Security policies for your business
- Password use policies
- Authentication technologies
- Encryption technologies
- Social engineering awareness
- Updating security software and installing security patches.
- Data disposal and destruction
- Wireless security measures.

Your paper should meet the following requirements:

- Three to four pages in length, not including cover and reference pages.
- Formatted according to the CSU-Global Guide to Writing and APA Requirements.
- Cite a minimum of three sources, two of which should be academic peer-reviewed scholarly sources to support your responses, in addition to your textbook. The CSU-Global library is a great place to find these resources.

Refer to the Portfolio Rubric available in the Module 6 Materials folder for information on grading details.

**Module 8**

**PORTFOLIO PROJECT (200 points)**

Complete the Portfolio Project that corresponds with the Portfolio Project option that you selected at the beginning of the course. Do not complete both options. Identify your Portfolio Project choice in the title of your document.

**Portfolio Project Option #1: IT Infrastructure for a Small Firm**

For the Portfolio Project, you will have one of two projects from which to choose. For Option #1, you will develop a technology project proposal that outlines a technology plan for a small firm. In Option #1, you have been hired as an IT expert by a small firm to set up an office for 20 staff members, half of whom will work with desktop computers, and the remaining with laptop computers using wireless networks. The office will use one networked laser printer, accessible both from the desktop and laptop computers. The desktop computers will use a wired network, while the laptop computers will employ a wireless network to print and access the Internet.
You will incorporate Phases 1-3 in your Portfolio Project as a technological proposal. Phases 1-3 serve as the basis of the project deliverable section in the technological proposal, which you will submit as a full project (Phase 4) in Module 8.

**Phase 1:**

- **Statement of the Problem or Need:** Write a description of the purpose/need/rationale for a small firm. What problem(s) are you planning to solve for a small firm?
- **Project Deliverables:** Write a description of the necessary hardware components and software to set up computer systems for the business/firm. Phase 1 of the Portfolio Project is due in Module 2.

Keep in mind that you will update the project deliverable section as you complete different phases and when you receive feedback from your instructor.

**Phase 2:**

- **Project Beneficiaries:** Write a description of who will derive direct benefit from the project and how they will benefit.
- **Project Deliverables:** Write a description of the computer network hardware necessary to set up the computer networks and the necessary software and protocols.

Keep in mind that you will update the project deliverable section as you complete different phases. Phase 2 of the Portfolio Project is due in Module 4.

**Phase 3:**

- **Assumptions and Constraints:** Write a description of any assumptions and constraints regarding the project. Are there any assumptions made so far or constraints identified in the project? Are there any constraints or anything that would restrict the ability to achieve the IT project objectives successfully?
- **Project Deliverables:** Write a description of what is necessary to acquire and install the computer and network security hardware and software. Phase 3 of the Portfolio Project is due in Module 6.

In Phase 4 you will include revisions based on feedback from your instructor, and you will incorporate what you have learned throughout the term. Your technological proposal should include the following:

- **Statement of the Current Problem:** Describe the purpose/need/rationale for the IT project. What problem is this IT project designed to address?
- **Project Deliverables and Beneficiaries:** Describe the objective of the IT project; what is the IT project to achieve, create, or deliver? Please identify who will derive a direct benefit from the expected outcome.
- **Time Factors:** Are there any time factors, such as deadlines, that should be considered in your IT implementation proposal? Create a timeline for implementation.
- **Qualifications:** Write a short description of your qualifications.
- **Project Assumptions and Constraints:** Are there any assumptions made so far or constraints identified in the project? Are there any constraints or anything that would restrict the ability to achieve the IT project objectives successfully?
- **Project Risks:** Are there any risks associated with the IT project? For instance, will there be data that should not be available to the public? Are there any risks that might prevent a successful project outcome?
- **Project Expenses:** Please indicate what IT expenses will be associated with this project as well as the sources for funding. Provide the most accurate estimates that you can, which includes the cost to complete the project and maintenance after the project.

The Portfolio Project should meet the following requirements:

- Ten to twelve pages (minimum) in length, not including the cover and reference pages.
Portfolio Project Option #2: IT Infrastructure for an Educational Institution

For the Portfolio Project, you will have one of two projects from which to choose. For Option #2, you have been hired as an IT manager for a new campus to set up the IT infrastructure over a six-month period in four phases. An educational institution is setting up a new campus which will house classrooms, offices, a library, a student lounge, registrar’s office, and an academic support center for students.

You will incorporate Phases 1-3 in your Portfolio Project as a technological proposal. Phases 1-3 serve as the basis of the project deliverable section in the technological proposal, which you will submit as a full project in Module 8.

Phase 1:

- **Statement of the Problem or Need:** Write a description of the purpose/need/rationale for the IT project at the campus. What problem(s) are you planning to solve at the campus?
- **Project Deliverables:** Write a description of the necessary hardware components and software to set up computer systems for the educational institution. Phase 1 of the Portfolio Project is due in Module 2.

Keep in mind that you will update the project deliverable section as you complete different phases and when you receive feedback from your instructor.

Phase 2:

- **Project Beneficiaries:** Write a description of who will derive direct benefit from the project and how they will benefit.
- **Project Deliverables:** Write a description of the computer network hardware necessary to set up the computer networks and the necessary software and protocols.

Keep in mind that you will update the project deliverable section as you complete different phases. Phase 2 of the Portfolio Project is due in Module 4.

Phase 3:

- **Assumptions and Constraints:** Write a description of any assumptions and constraints regarding the project. Are there any assumptions made so far or constraints identified in the project? Are there any constraints or anything that would restrict the ability to achieve the IT project objectives successfully?
- **Project Deliverables:** Write a description of what is necessary to acquire and install the computer and network security hardware and software. Phase 3 of the Portfolio Project is due in Module 6.

In Phase 4 you will include revisions based on feedback from your instructor and you will incorporate what you have learned throughout the term. Your technological proposal should include the following:

- **Statement of the Current Problem:** Describe the purpose/need/rationale for the IT project. What problem is this IT project designed to address?
- **Project Deliverables and Project Beneficiaries:** Describe the objective of the IT project; what is the IT project is to achieve, create, or deliver. Please identify who will derive a direct benefit from the expected outcome and how they will benefit from the project.
• **Time Factors:** Are there any time factors, such as deadlines, that should be considered in your IT implementation proposal? Create a timeline for implementation.

• **Qualifications:** Write a short description of your qualifications.

• **Project Assumptions and Constraints:** Are there any assumptions made so far or constraints identified in the project? Are there any constraints or anything that would restrict the ability to achieve the IT project objectives successfully?

• **Project Risks:** Are there any risks associated with the IT project? For instance, will there be data that should not be available to the public? Are there any risks that might prevent a successful project outcome?

• **Project Expenses:** Please indicate what IT expenses will be associated with this project as well as the sources for funding. Provide the most accurate estimates that you can, which includes the cost to complete the project and maintenance after the project.

The Portfolio Project should meet the following requirements:

- Ten to twelve pages (minimum) in length, not including the cover and reference pages.
- Formatted according to the CSU-Global Guide to Writing and APA Requirements.
- Cite a minimum of five to seven sources, five of which should be academic peer-reviewed scholarly sources and in-text citations to support your responses, in addition to your textbook. The CSU-Global library is a great place to find these resources.

Refer to the Portfolio Project grading rubric available in the Module 8 Materials folder for information on grading. Phase 1-3 rubrics are in the respective Module folders.

**Course Policies**

**Course Grading**

<table>
<thead>
<tr>
<th>20% Discussion Participation</th>
<th>0% Opening Exercises</th>
<th>8% Mastery Exercises</th>
<th>37% Critical Thinking Assignments</th>
<th>35% Final Portfolio Paper</th>
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**Grading Scale and Policies**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>95.0 – 100</td>
</tr>
<tr>
<td>A-</td>
<td>90.0 – 94.9</td>
</tr>
<tr>
<td>B+</td>
<td>86.7 – 89.9</td>
</tr>
<tr>
<td>B</td>
<td>83.3 – 86.6</td>
</tr>
<tr>
<td>B-</td>
<td>80.0 – 83.2</td>
</tr>
<tr>
<td>C+</td>
<td>75.0 – 79.9</td>
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<tr>
<td>C</td>
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<td>D</td>
<td>60.0 – 69.9</td>
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<tr>
<td>F</td>
<td>59.9 or below</td>
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**In-Classroom Policies**

For information on late work and incomplete grade policies, please refer to our In-Classroom Student Policies and Guidelines or the Academic Catalog for comprehensive documentation of CSU-Global institutional policies.

**Academic Integrity**

Students must assume responsibility for maintaining honesty in all work submitted for credit and in any other work designated by the instructor of the course. Academic dishonesty includes cheating, fabrication, facilitating academic dishonesty, plagiarism, reusing /re-purposing your own work (see CSU-Global Guide to Writing and APA Requirements for percentage of repurposed work that can be used in an assignment), unauthorized possession of academic materials, and unauthorized collaboration. The CSU-Global Library provides information...
on how students can avoid plagiarism by understanding what it is and how to use the Library and Internet resources.

**Citing Sources with APA Style**
All students are expected to follow the *CSU-Global Guide to Writing and APA Requirements* when citing in APA (based on the APA Style Manual, 6th edition) for all assignments. For details on CSU-Global APA style, please review the APA resources within the CSU-Global Library under the “APA Guide & Resources” link. A link to this document should also be provided within most assignment descriptions on your course’s Assignments page.

**Disability Services Statement**
CSU–Global is committed to providing reasonable accommodations for all persons with disabilities. Any student with a documented disability requesting academic accommodations should contact the Disability Resource Coordinator at 720-279-0650 and/or email ada@CSUGlobal.edu for additional information to coordinate reasonable accommodations for students with documented disabilities.

**Netiquette**
Respect the diversity of opinions among the instructor and classmates and engage with them in a courteous, respectful, and professional manner. All posts and classroom communication must be conducted in accordance with the student code of conduct. Think before you push the Send button. Did you say just what you meant? How will the person on the other end read the words?

Maintain an environment free of harassment, stalking, threats, abuse, insults or humiliation toward the instructor and classmates. This includes, but is not limited to, demeaning written or oral comments of an ethnic, religious, age, disability, sexist (or sexual orientation), or racist nature; and the unwanted sexual advances or intimidations by email, or on discussion boards and other postings within or connected to the online classroom.

If you have concerns about something that has been said, please let your instructor know.