

**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.

## American Public University System

*The Ultimate Advantage is an Educated Mind*

School of Science and Technology  
Department of Information Technology  
ISSC621: Computer Forensics  
Credit Hours: 3  
Length of Course: 8 Weeks  
Prerequisite(s): None

### Table of Contents

<a href="#">Instructor Information</a>	<a href="#">Grading Scale</a>
<a href="#">Course Description</a>	<a href="#">Course Outline</a>
<a href="#">Course Scope</a>	<a href="#">Policies</a>
<a href="#">Course Objectives</a>	<a href="#">Academic Services</a>
<a href="#">Course Delivery Method</a>	<a href="#">Selected Bibliography</a>
<a href="#">Resources</a>	<a href="#">Grading Rubric</a>
<a href="#">Evaluation Procedures</a>	

### Instructor Information

**Instructor:**

**Email:**

**Phone:**

**Office Hours:**

[Table of Contents](#)

### Course Description (Catalog)

This course examines information concealment techniques, technologies, hardware, software, and relevant legislation for cyber forensics to reveal and track legal and illegal activity. The course examines the process for investigation and introduces the tools and procedures required to legally seize and forensically evaluate a suspect machine. Also covered are the rules of evidence, chain of custody, standard operating procedures, and the manipulation of technology to conceal illegal activities, and revealing concealed information using cyber forensics.

[Table of Contents](#)

### Course Scope

This course is designed to enable students to concentrate on the challenges that changes in technology have created. Issues such as professional ethics, liability, critical thinking, moral responsibility, privacy, free speech, and security will be examined in the context of computer use. Students will consider the impact of technology in decision-making, corporate policies, budgets, government regulations and the law. Ethics is a topic that cannot be memorized but rather is a subject that is open for debate. Case studies will be assigned to examine the challenges that computer professionals face on a daily basis and the interrelationships of ethics, law, and technology.

**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.

### Course Objectives

A successful student will fulfill the following learning objectives:

1. Describe the processes and goals of cyber forensics investigations.
2. Investigate present policies, procedures, methodologies and legal ramifications of cyber forensics investigations.
3. Assess the tools and procedures required to legally seize and forensically investigate and evaluate a suspect's computer.
4. Evaluate the relationships and interdependencies between investigation and technology; also examine the related legal process.
5. Analyze concealment techniques, technologies, software, hardware and relevant legislation.
6. Evaluate data security, integrity exposure of multifunctional devices, tracking techniques and relevant new legislation.
7. Discuss rules of evidence and chain of custody using and investigative technology.
8. Assess and mitigate potential exposures and the risks of chain of custody.

[Table of Contents](#)

### Course Delivery Method

This course delivered via distance learning will enable students to complete academic work in a flexible manner, completely online. Resources 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 Forum questions (accomplished in groups through a threaded Forum), 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.

[Table of Contents](#)

### Resources

Newman, R.C. (2007). *Computer Forensics: Evidence Collection and Management*. Auerbach Publications: Taylor and Francis Group. ISBN: 0849305616  
E-Book: <http://www.taylorandfrancis.com/books/details/9780849305627/>

Blackley, J. A., Peltier, J., & Peltier, T. (2003) *Information Security Fundamentals*. Auerbach Publications, (6<sup>th</sup> ed.) ISBN: 0849319579/978-0849319570

American Psychological Association. (2010). *Publication Manual of the American Psychological Association (6<sup>th</sup> Edition)*. Washington, DC. ISBN: 1-4338-0561-8

### Software Requirements

- Helix v2.0 <http://www.e-fense.com/helix/>
- Encase <http://www.guidancesoftware.com/>
- FTK <http://www.accessdata.com/>
- Microsoft Office (MS Word, MS Excel, MS PowerPoint)
- Adobe Acrobat Reader ([Click here for free download](#))

### Web Resources

- [www.sans.org](http://www.sans.org)
- [www.e-fence.com](http://www.e-fence.com)
- <http://www.computerforensicsworld.com>

[Table of Contents](#)

### Evaluation Procedures

**Course Requirements:** Your final grade will be based on the following course requirements and percentages:

**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.

Course Requirement	Percent
1. Forum Activities - 8 Forums (3 pts each)	24
2. Weekly Assignments - 7 assignments (2 pts each)	14
3. Outline #1 and Term Paper #1 – 1 Outline (2pt) Term Paper (23 pts)	25
4. Outline #2 and Term Paper #2 – 1 Outline (2pt) Term Paper( 23 pts)	25
5. Outline #3 and Term Paper #3 – Term Paper (12 pts)	12
<b>Total</b>	<b>100</b>

Submit assignments to your student folder, and make sure you select the correct assignment association. Please name your submitted document with your last name as the first part of the file name. For example, Assignment #1 could be named, Lastname\_Assignment1.doc. Forum assignments only need to be posted on the Forum. It is not necessary to submit a word document containing your Forum posts. Simply submit your discussion posts using the submit button and I will review them and update your assignment grade accordingly.

### Assignment Requirements

This course has a strong writing component. The goal is to organize, synthesize, and demonstrate your comprehension of core concepts investigated during this course by applying a combination of the terms, concepts, and details you have learned in a systematic way. As important as "the details" that you analyze and arrange in your writing, however, are the conclusions you draw from those details, and your predictions, responses to, and ultimate interpretation of those details.

### FORUM ACTIVITIES:

Each Forum activity will consist of one or more threads/topics. The assignments may involve discussion or debate. The questions are designed to allow you to apply what you have learned in the chapters to real-world scenarios or hypothetical, but realistic, situations. Post your answers to the questions in each thread prior to **11:59 p.m. ET on Thursday**. Please do not be late with this post because your classmates will be relying on you to post on time to give them a post to respond to later in the week. A discussion period will then ensue from Thursday through Sunday. Read your classmates' posts and post at least **two** follow-up messages to your classmates' posts in **each** thread prior to **11:59 p.m. ET on Sunday**. Some threads may require you to post more than two replies, so make sure you read the directions carefully. Of course, you may always post more than the required number of replies and you are encouraged to continue participating in the discussion even after you have met the minimum number of posts required. So, remember, you will have a minimum of three per week: one answering the Forum question and two to your fellow class members. Your Forum participation will be considered at the end of the semester if your grade is on the borderline. Borderline grades will only be rounded up if you have exceeded the minimum requirements on the Forum and shown insight and critical thinking in all of your posts and replies. Your follow-up posts must contain substance and should add additional insight to your classmates' opinions or challenge their opinions. It is never sufficient to simply say, "I agree with what you wrote" or "I really liked your post." You must use your follow-up posts as a way to continue the discussion at a high level of discourse. Be sure to read the follow-up posts to your own posts and reply to any questions or requests for clarification, including questions posted by your professor. You will be expected to log into the classroom several times each week to participate in the class discussion. Forum postings are a large part of your grade and I will be looking for quality and depth in your postings. I will also expect you to list your references at the end of each post. References should be in APA citation format.

### TERM PAPERS:

You will be required to write three term papers this semester. Details on the term papers will be listed under the assignments section. General specifications are as follows:

**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.

1. You must write two 12-16 page term papers on computer related ethics and one 7-page report comparing/contrasting computer forensics tools. TOPICS FOR THESE PAPERS (#1 and #2) MUST BE APPROVED IN ADVANCE.
2. Term paper #1 is due at the end of week 4.
3. Term paper #2 is due at the end of week 7.
4. Term Paper #3 on Tools is due at the end of week 8. This is a paper comparing/contrasting computer forensics tools. Develop at least three areas you can utilize to compare/contrast them (pricing, performance, availability, etc.) and then select your tools and develop your paper. You must compare/contrast at least five computer forensics tools.
5. In addition to the pages of the paper itself, you must include a title page and a references page. Your title page must include the title of your paper, the date, the name of this course, your name, and your instructor's name.
6. Your references page must be written in APA citation style Arial 11 or 12-point font or Times New Roman styles. **You must cite a minimum of ten (10) outside sources for Term Papers 1 and 2 and five (5) for Term Paper 3.**
7. Page margins Top, Bottom, Left Side and Right Side = 1 inch, with reasonable accommodation being made for special situations
8. Your paper must be in your own words, representing original work. Paraphrases of others' work must include attributions to the authors. **Limit quotations to an average of no more than 3-5 lines, and use quotations sparingly!** It is always better to paraphrase than to directly quote.
9. Papers must be submitted to [www.turnitin.com](http://www.turnitin.com) for review. PAPERS WITH AN ORIGINALITY REPORT FROM TURNITIN OVER 15% OR OVER 2% FROM A SINGLE SOURCE WILL RESULT IN A SIGNIFICANT POINT REDUCTION.

**Summary:**

Paper Number	What is it?	When is it due?	How many pages?
1	Outline	End of week 2	1
1	Select any topic covered in the course	End of week 4	12-16
2	Outline	End of week 5	1
2	Select any topic covered in the course	End of week 7	12-16
3	Comparing forensic tools	End of week 8	7

PER THE STUDENT HANDBOOK, YOU CANNOT SUBMIT A PAPER THAT HAS BEEN SUBMITTED IN ANOTHER COURSE.

**Grading Scale**

Please see the [student handbook](#) to reference the [University's grading scale](#).

[Table of Contents](#)

**Course Outline**

<u>Week</u>	<u>Topic(s)</u>	<u>Learning Objective(s)</u>	<u>Reading(s)</u>	<u>Assignment(s)</u>
-------------	-----------------	------------------------------	-------------------	----------------------

**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.

1	Computer Forensics Basics	1, 2	Newman, Ch 1-2	Week 1 Discussion Assignment #1
2	Examination Categories & Internet Crimes	1, 3, 4	Newman, Ch 3 & 4	Week 2 Discussion Assignment #2 Paper Outline #1
3	Computer Electronics & Investigations Tools	2,4,6	Newman, Ch 5 & 6	Week 3 Discussion Assignment #3
4	Managing the Crime/Scene	1, 6, 7	Newman, Ch 7 & 8	Week 4 Discussion Assignment #4 Term Paper #1
5	Disk & File Structures and the Lab	1, 8	Newman, Ch 9 & 10	Week 5 Discussion Assignment #5 Paper Outline #2
6	Extracting Computer and Electronic Evidence	1,2,4,5	Newman, Ch 11 & 12	Week 6 Discussion Assignment #6
7	Mobile Phone & PDA Applications	1,2,3,4,8	Newman, Ch 13	Week 7 Discussion Assignment #7 Term Paper #2
8	Court Preparation	1,6,8	Newman, Ch 14	Week 8 Discussion Term Paper #3

### Policies

Please see the [student handbook](#) to reference all University policies. Quick links to frequently asked question about policies are listed below.

- [Drop/Withdrawal Policy](#)
- [Plagiarism Policy](#)
- [Extension Process and Policy](#)

### 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* (6<sup>th</sup> ed.). (2010). 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

**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.

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. Assignments submitted late without a prearranged extension will be subject to a 10% late penalty. **No late assignments will be accepted after the last day of the course.**

[Table of Contents](#)

## Academic Services

### ONLINE LIBRARY RESEARCH CENTER & LEARNING RESOURCES

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 [orc@apus.edu](mailto:orc@apus.edu).

- **Charles Town Library and Inter Library Loan:** 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.
- **Electronic Books:** You can use the online library to uncover and download over 50,000 titles, which have been scanned and made available in electronic format.
- **Electronic Journals:** The University provides access to over 12,000 journals, which are available in electronic form and only through limited subscription services.
- **Turnitin.com:** [Turnitin.com](http://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.

[Table of Contents](#)

## Web Resources

1. Digital Forensics Association: <http://www.digitalforensicsassociation.org/library/>
2. NIJ: Forensic examination of digital evidence guide: <http://www.ncjrs.gov/pdffiles1/nij/199408.pdf>
3. Computer Forensic tool testing: <http://www.ojp.usdoj.gov/nij/topics/technology/electronic-crime/cftt.htm>
4. Recovering and Examining Computer Forensic Evidence: <http://www.fbi.gov/hq/lab/fsc/backissu/oct2000/computer.htm>
5. Computer Forensic white papers: <http://www.forensics.nl/links>
6. Forensic Focus: <http://www.forensicfocus.com/>

**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.

7. FRCP: Rule 26: <http://www.law.cornell.edu/rules/frcp/Rule26.htm>
8. ENCase Software -- [www.guidancesoftware.com/forensic.htm](http://www.guidancesoftware.com/forensic.htm)
9. FTK software – [www.accessdata.com/products/computer-forensics/ftk](http://www.accessdata.com/products/computer-forensics/ftk)
10. Computer Forensics jobs -- <http://www.careerbuilder.com/jobs/keyword/computer%20forensics/>
11. Computer Forensics jobs -- [http://www.computer-forensics-recruiter.com/careers/computer\\_forensics\\_jobs.html](http://www.computer-forensics-recruiter.com/careers/computer_forensics_jobs.html)
12. Getting Started -- <http://computer-forensics.sans.org/blog/2010/08/20/getting-started-digital-forensics-what-takes/>
13. Computer forensics degrees/skills -- <http://www.computerforensicsdegrees.org/>
14. The different types of computer forensics jobs -- <http://www.wisegeek.com/what-are-the-different-types-of-computer-forensic-jobs.htm>
15. Certified Computer Examiner -- <http://www.isfce.com/>

**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.

### Appendix A – Grading Rubric

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.

<b>APUS Assignment Rubric Graduate Level 600+</b>	<b>EXEMPLARY LEVEL 4</b>	<b>ACCOMPLISHED LEVEL 3</b>	<b>DEVELOPING LEVEL 2</b>	<b>BEGINNING LEVEL 1</b>	
<b>FOCUS/THESIS</b>	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.	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.	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.	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.	10
<b>CONTENT/SUBJECT KNOWLEDGE</b>	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.	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.	The assignment reveals that the student has a general, fundamental understanding of the Resource. Whereas, there are areas of some concern in the linkages provided between facts and supporting statements. Student generally explains concepts, but only meets the minimum requirements in this area.	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.	20
<b>CRITICAL THINKING</b>	Student demonstrates a	Student exhibits a good	Student takes a common,	Student demonstrates	20



**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.

<b>SKILLS</b>	higher-level of critical thinking necessary for 300-400 level work. Learner provides a strategic approach in presenting examples of problem solving or critical thinking, while drawing logical conclusions which are not immediately obvious. Student provides well-supported ideas and reflection with a variety of current and/or world views in the assignment. Student presents a genuine intellectual development of ideas throughout assignment.	command of critical thinking skills in the presentation of material and supporting statements. Assignment demonstrates the student's above average use of relating concepts by using a variety of factors. Overall, student provides adequate conclusions, with 2 or fewer errors.	conventional approach in guiding the reader through various linkages and connections presented in assignment. However, student presents a limited perspective on key concepts throughout assignment. Student appears to have problems applying information in a problem-solving manner.	beginning understanding of key concepts, but overlooks critical details. Learner is unable to apply information in a problem-solving fashion. Student presents confusing statements and facts in assignment. No evidence or little semblance of critical thinking skills.	
<b>ORGANIZATION OF IDEAS/FORMAT</b>	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.	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.	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.	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.	20
<b>WRITING</b>	Student demonstrates an	Student provides an	Assignment reflects basic	Topics, concepts, and	20

**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.

<b>CONVENTIONS (GRAMMAR &amp; MECHANICS)</b>	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.	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.	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.	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.	
<b>USE OF COMPUTER TECHNOLOGY/ APPLICATIONS</b>	Student provides a high-caliber, 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.	Assignment presents an 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.	Student demonstrates a basic 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.	Student needs to develop 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.	10
<b>TOTAL POINTS</b>					100