American Public University System

The Ultimate Advantage is an Educated Mind

School of Science and Technology Department of Information Technology ISSC661: Information Assurance – Assessment & Evaluation Credit Hours: 3 Length of Course: 8 Weeks Prerequisite(s): None

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Instructor Information

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Instructor:	
Messages:	
E-mail:	
Telephone:	
Fax:	
Office Hours:	
Course:	
Syllabus Version:	
Course Description (Catalog)	

This course is an advanced study of the principles, practices, procedures, and methodologies to assure the protection and availability of vital digital information systems assets. It examines information assurance, incident management and response, and security standards; and it appraises the convergence between information security, information systems security, and information warfare. This course appraises organizational, legal, technical, and ethical issues related to securing vital digital assets. Topics include: the role of the corporate security officer, corporate cybercrime, electronic commerce, cryptography, and international standards, policies, and security acts.

Course Scope

This course is a study of the discipline of Information Assurance as it relates to security assessments and evaluations.

Course Objectives

A successful student will fulfill the following learning objectives:

- 1. Assess organizational networks, systems, and information storage solutions to recommend an information assurance security plan that protects the organization by decreasing risk and mitigating vulnerabilities.
- 2. Examine the business case for information security; also define roles and responsibilities
- 3. Evaluate and develop strategic metrics to help determine information security outcomes
- 4. Assess security governance objectives and risk management objectives
- 5. Develop a cost-effective security strategy and synthesize meaningful security program metrics
- 6. Design relevant information security management metrics by analyzing incident management and response data

Course Delivery Method

This M.S. in IT-Information Assurance and Security 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.** Assigned faculty will support the students throughout this eight-week course.

Resources

Required Texts

- Blackley, J. A., Peltier, J., & Peltier, T. (2003). *Information security fundamentals, 1st Edition.* Boca Raton, FL. Auerbach Publications. ISBN: 0849319579/9780849319570
- Brotby, W. K. (2009) Information security management metrics: A definitive guide to effective security monitoring and measurement, Boca Raton, FL. Auerbach Publications. ISBN: 1420052853/9781420052855
- Landoll, D. J. (2011) *The security risk assessment handbook: A complete guide for performing security risk assessments, 2nd ed.*, Boca Raton, FL. Auerbach Publications. ISBN: 1439821488/9781439821480

Evaluation Procedures

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. Complementing the critical thinking aspect of these writing assignments is the application of the standard academic style guidelines in the APA 6th Edition style guide, the standard for APU writing, as well as the writing expectations contained in this Syllabus. **Ensure you fully understand the Writing Expectations for each writing activity as laid out later in the Syllabus.**

Forum Assignments: There will be eight Forum assignments during the course. The assignments will count as 24% of the final grade. Students should expect to post an initial response to Forum topics / questions by Wednesday of each week; commenting on other student postings by Friday, and seeking to engage in a dialogue on the topics offered with their peers. Forum postings should express complete responses / thoughts, documented by academic resources that offer support for anecdotal views and personal exemplars. The objective is to provide an understanding of the topic under discussion and to engage in a scholarly dialogue with other members of the class to expand overall understanding and knowledge of the topic.

Research Paper Topic: You must submit a Research Paper Topic in Week 2 of the course. Your topic must be related to IA Assessments and Evaluations and course objectives as outlined. That topic must

be reviewed and approved by the course Professor prior to pursuing the next steps in the Research Paper process. See the Writing Expectations contained in the Policies section of the Syllabus for specific focus areas / guidance. Please be aware that this is a progressive research development process that will carry the same approved topic throughout the research paper development process and related assignments.

Research Paper Outline: You must submit a Research Paper Outline by the end of Week 3 of the course. Your topic must be related to IA Assessments and Evaluations and course objectives as outlined, using the approved topic submitted during Week 2. Your initial Research Paper References should be included and references must be formatted according to APA 6th Edition style guidelines. See the Writing Expectations contained in the Policies section of the Syllabus for specific focus areas / guidance.

Research Paper Annotated References: You must use a minimum of five (5) sources <u>beyond</u> the course textbooks in Week 4. These sources should be from industry articles, journals, academic and professional books, and case studies. You may **not** use Wikipedia or Webopedia or any of the 'pedias' as a reference. Your references must be formatted according to APA 6th Edition style guidelines. See the Writing Expectations contained in the Policies section of the Syllabus for specific focus areas / guidance.

Draft & Final Research Paper: The Draft Research Paper is due at the end of Week 5 and the Final Research Paper is due in week 7 of the course (8 – 10 pages not including the Cover Page or the References listing – APA 6th Edition formatting). The draft will count as 15% of the final grade and the final will count as 25% of the final grade. The paper will follow a conventional paper format (Cover page, Body of Paper with introduction, discussion / analysis / argument / body, conclusion, and references pages). See the Writing Expectations contained in the Policies section of the Syllabus for specific focus areas / guidance as well as conforming with APA 6th edition style guidelines.

Risk Assessment Case Study: The Risk Assessment case study will use NIST Special Publication 800-30 (available at <u>http://csrc.nist.gov/publications/drafts/800-30-rev1/SP800-30-Rev1-ipd.pdf</u> or in the Course Resources area) as the basis for performing a risk assessment of a selected computing system. The selected computing system can be your personal home network (e.g., from ISP appliance to connections within your home location), a work oriented network, or a public network (e.g., public library, commercial venue, free Wifi hotspot). Intent of the case study will be to create and populate an adversarial and a non-adversarial risk assessment patterned after Table I-5 and Table I-7 in NIST SP 800-30 – this means that you should fill out those two templates as a minimum as part of your assessment – and provide discussion and analysis from that assessment. This case study will count for 20% of the final grade. This case study will be due at the end of Week 8. The paper should be between 7-8 pages long (not counting the Cover and Reference pages), include the populated tables, and will follow a conventional paper format (Cover page, Body of Paper with introduction, risk assessment / discussion / analysis / argument / body, conclusion, and references pages). See the Writing Expectations contained in the Policies section of the Syllabus for specific focus areas / guidance as well as conforming with APA 6th edition style guidelines.

Grade Instruments	Points Possible	% of Final Grade
Forum Assignments (8)	24	24%
Research Paper Topic	1	1%
Research Paper Outline	5	5%
Research Paper Annotated References	10	10%
Research Paper Draft	15	15%
Research Paper Final	25	25%
Risk Assessment Case Study	20	20%
TOTAL	100 Points	100%

See **Appendix A – Grading Rubric** for Grading Criteria on assignments listed above.

Grading Scale

Please see the student handbook to reference the University's grading scale.

Course Outline

<u>Week</u>	<u>Topic(s)</u>	Learning Objective(s)	Assignment(s)	
	Textbook: The Security Risk	CO – 1	Forum postings for Week 1	
	Assessment Handbook - Landoll	Explain the purpose of a Security Risk Assessment	A. Discussion Question 1 Introduce yourself to the class providing	
	Chapter 1: Introduction	 Explain when a Security Risk Assessment should be 	a short biography with your degree program, profession, location, and hobbies.	
	Chapter 2: Information Security Risk	conducted	B. Discussion Question 2	
1	Assessment Basics	Identify who should conduct a Security Risk Assessment	Define the purpose of a Risk Analysis and describe how you would determine the type(s) of Security Risk	
	Textbook: Information Security Fundamentals, 1 st Edition – Peltier et al Chapter 8: Risk	 Understand the various activities which could be involved in a Security Risk Assessment 	Assessment(s) an organization would require and why (e.g. Gap Assessment, Compliance Audit, Security Audit, Vulnerability Scanning, Penetration Testing, Ad Hoc Testing, Social	
	Analysis and Risk Management	Understand threat agents and threats	Engineering, Wardialing, etc.).	

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of APUS. Textbook: The Security Risk Assessment Handbook Landoll Chapter 3: Project Definition Chapter 4: Security Risk Assessment Preparation Textbook: Information Security Management Metrics: A Definitive Guide to Effective Security Monitoring and Measurement -	 CO - 2 Evaluate how long a Security Risk Assessment should take Understand how the success of a Security Risk Assessment is Measured Understand what safeguards are and how they are to be used Understand the importance of establishing a budget Understand the importance of determining the scope and how to prevent scope crepe 	 Forum postings for Week 2 A. Discussion Question 1 Explain the steps involved with Security Risk Assessment Preparation. B. Discussion Question 2 Describe what Security Metrics are and how they can be used in a Security Risk Assessment. Research Paper Topic Due
Chapter 1: Security Metrics Overview Chapter 2: Security Metrics	 Understand the role of the Statement of Work and what it should contain Identify the roles within a Security Risk Assessment Team Identify Critical Systems and understand the roles of Asset and Metrics Classifications 	

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	Textbook: The Security Risk Assessment	CO – 3 • Describe the project definition phase	Forum postings for Week 3 A. Discussion Question 1:
	Handbook - Landoll Chapter 12: Security Risk Assessment Project Management	 Understand what resources are required for a given Security Risk Assessment 	Explain the role of Project Management as it relates to managing Security Assessments. Also discuss each phase in Project Management.
3		 Explain how to establish and implement project tracking tools and techniques Differentiate between project 	B. Discussion Question 2: Discuss each phase in Project Management as it relates to managing Security Assessments.
		tracking and project status reporting	Research Paper Outline Due
		Understand how to establish plans and strategies to prevent scope creep	

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	Textbook: The	CO -	- 4	Forum postings for Week 4
	Security Risk			
	Assessment	•	Explain the Data Gathering	A. Discussion Question 1
	Handbook - Landoll		phase at large	Differentiate between administrative,
	Chapter E. Data			technical and physical security controls
	Chapter 5: Data	•	Understand the impact of	(safeguards) and give an example of
	Gathering	-	security assessment scoping as	each.
	Chapter 6:		it relates to Data Gathering	
	Administrative Data		in foldioo to Data Catholing	B. Discussion Question 2
	Gathering	•	Comprehend the differences	Identify and explain how to gather data
	Oberster 7. Teebricel		between administrative,	on administrative, technical, and physical
	Chapter 7: Technical		technical, and physical data	security controls (safeguards).
	Data Gathering		technical, and physical data	
	Chapter 8: Physical		Differentiate the different data	Research Paper Annotated
	Data Gathering	•	Differentiate the different data	References Due
	3		gathering techniques	
		•	Understand the importance of	
4			establishing sampling objectives	
		•	Identify Sampling	
			methodologies	
		•	Understand non-technical	
			security processes	
		•	Explain the different security	
			control categories and	
			differentiate them.	
		•	Explain information control,	
			business continuity, system	
			security, secure architecture,	
			system security components,	
			system security configuration,	
			and data security.	

	Textbook: <i>The</i> Security Risk	CO – 5	Forum postings for Week 5
	Assessment Handbook - Landoll	Understand how to determine Risk	A. Discussion Question 1: Imagine you are tasked with evaluating
	Chapter 9: Security Risk Analysis	Understand how to establish Risk Statements	the Administrative Processes involved in hiring new employees within your organization. During a Security Risk Assessment, you identify that your
	Textbook: Information Security Management	Understand how to establish Risk Parameters	organization does not have a policy which requires conducting background checks on applicants for hire. Determine
	Metrics: A Definitive Guide to Effective	Understand how to conduct a security assessment	whether or not this is a risk and explain why or why not.
5	Security Monitoring and Measurement - Brotby Chapter 11: Information Security Risk Management	 Apply project management aspects of the security assessment Comprehend security control evaluation techniques and frameworks Evaluate administrative, technical and physical controls or lack thereof within the operational context. Rationalize risks according to inductor standards for large 	 B. Discussion Question 2: Imagine you are asked to provide a Operational Risk Management goal setting exercise. From your perspective, what are the most important 'loss events' that should be addressed and why? Draft of Research Paper Due
		industry standards, federal regulations, and organizational operating context	

	Textbook: The Security Risk Assessment	CO – 7	Forum postings for Week 7 A. Discussion Question 1:
	Handbook - Landoll	Understand Quantitative Analysis	Explain the difference between a
	Chapter 13: Security Risk Assessment	Understand Qualitative Analysis	Quantitative and Qualitative Analysis and discuss how to calculate the following:
	Approaches	Differentiate between Quantitative and Qualitative Analysis	Expected LossSingle Loss Expectancy
	Textbook: Information Security	Explain the variant Risk Assessment methods	Annualized Loss ExpectancySafeguard Value
7	Management Metrics: A Definitive Guide to Effective Security Monitoring and Measurement - Brotby Chapter 3: Current State of Security Metrics	 Explain how to conduct a security controls (safeguards) cost calculation Comprehend how to conduct a cost-benefit analysis on security controls (safeguards) implementation 	 B. Discussion Question 2: Describe the differences between the following risk assessment methods: FAA Security Risk Management Process, OCTAVE, FRAP, CRAMM, and NSA IAM. Final Research Paper Due!

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	Textbook: The	CO – 6	Forum postings for Week 8
8	Security Risk Assessment Handbook	Describe security assessment reporting pitfalls	A. Discussion Question 1: If you could, which security reporting
	Chapter 11: Security Risk Assessment Reporting	Understand the importance of the security assessment reporting structure	methodology would recommend to promote an organizational "security culture," in which stakeholders is more knowledgeable and proactive about
	Information Security Risk Analysis, 3 rd Edition Appendix A: Sample Risk Assessment Management	Differentiate between the executive-level report and the base report	threats to information security? Discuss this question as a group.B. Discussion Question 2:
		Comprehend the importance of placing evidence in the Appendices	This forum topic is intended to offer you the opportunity to comment on the course structure, content, and setup. am seeking any input you might have
	Summary Report	Understand the document specification	that will help continue to refine this course as well as keep it current and updated. I greatly appreciate any
		 Understand the elements of a security risk analysis and how it 	comments you may have. Regards.
		impacts reporting objectives	Risk Assessment Case Study Due

Policies

Please see the <u>student handbook</u> 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 (All Assignments, Papers, and Case Study writing products) will be submitted in compliance with APA 6th Edition style guidelines. It is recommended that students try to adhere to a consistent format, which is described below.

- All Assignments, Papers, and Case Study writing products should be submitted inside the electronic classroom (unless classroom access is not possible and other arrangements have been approved by the professor).
- All Assignments, Papers, and Case Study writing products should contain a Cover Page with paper title, course identifier, student name, professor name, and date of paper.
- All Assignments, Papers, and Case Study writing products should be typewritten in Word format (deviations from Word need prior professor approval) in double-spaced format (ensure your auto spacing is turned off or set to zero in your paragraph settings) with a Times New Roman 12 pitch black color font.
- All Assignments, Papers, and Case Study writing products should have 1" margins all around; 0.5" paragraph indentation.
- All Assignments, Papers, and Case Study writing products should employ a running header and page numbers, appropriately placed.
- All Assignments, Papers, and Case Study writing products should use section headings -- standard section heading use is encouraged (e.g., Introduction, Discussion, Conclusion).
- All Assignments, Papers, and Case Study writing products citation formatting (both in text and in the References page) should conform to APA 6th edition style guidelines.

CITATION AND REFERENCE STYLE

Assignments must follow APA 6th edition style 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* (6th 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 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.

Academic Services

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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 <u>orc@apus.edu</u>.

- **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 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.
- **Tutorial & Student Study Center** (http://www.apus.edu/Online-Library/tutorials/index.htm). There is a full range of services that are aimed at providing support to a student's success in APUS courses. For example, students have access to 10 free hours of tutoring service per year through Tutor.com (accessible via the link above). **Tutor.com** is an award-winning online homework help and learning service that connects students to a certified tutor for one-on-one help. Get help with homework, studying, projects, essay writing, and test prep in every subject, including algebra, statistics, chemistry, physics, social studies, and English. There are thousands of academic and career services resources—worksheets, practice problems, videos in every subject, as well as financial literacy tips. They are available 24/7 so you can access them whenever you need extra help. Other services are available as well take a look at the link to see the support that is available to you as part of attending APUS.
- Science & Technology Help. In addition to these on-line services, a student can also reach out to science_tech@apus.com to obtain guidance and direction on IT related courses. This is one more resource that is available to students should they seek more insight into the field and the tools with which to succeed.

Selected Bibliography

Web Resources for Information Assurance: Assessment and Evaluation

 Information Security Risk Management
 Risk Management Guide for Information Technology Systems. (2002) Retrieved from
 <u>http://csrc.nist.gov/publications/nistpubs/800-30/sp800-30.pdf</u>

Sound Practices for the Management and Supervision of Operational Risk Management. (2003). Retrieved from <u>http://www.bis.org/publ/bcbs96.pdf</u>

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2) Quantitative v/s. Qualitative Risk Assessment

Data Centric Quantitative Computer Security Risk Assessment. Retrieved from <u>http://www.sans.org/reading_room/whitepapers/auditing/data-centric-quantitative-computer-</u> <u>security-risk-assessment_1209</u>

Rot, A. (2003). IT Risk Assessment: Quantitative and Qualitative Approach. Retrieved from http://www.iaeng.org/publication/WCECS2008/WCECS2008_pp1073-1078.pdf

3) Security Control Development and Evaluation

The Center for Internet Security. Retrieved from http://www.cisecurity.org

US-CERT: United States Computer Emergency Readiness Team. Retrieved from http://www.us-cert.gov

4) Business Impact Analysis

ISO 27001 & BS 25999 Business Impact Analysis. Retrieved from http://blog.iso27001standard.com/tag/business-impact-analysis/

5) FRAAP

Peltier, T. Effective Risk Analysis. (2000) Retrieved from http://csrc.nist.gov/nissc/2000/proceedings/papers/304slide.pdf

6) Risk Assessment Process

Cline, B. (2007). "The Information Security Assessment and Evaluation Methodologies: A DoD Framework for Control Self-assessment." *ISACA Journal, Vol 2.* <u>http://www.isaca.org/Journal/Past-Issues/2007/Volume-2/Documents/jopdf0702-info-security-request.pdf</u>

Information Systems Security Assessment Framework. Retrieved from <u>http://www.oissg.org/downloads/issaf-0.2/information-systems-security-assessment-framework-issaf-draft-0.2.1a/view.html</u>

Mencik, S. How to Conduct an Information Security (INFOSEC) Assessment. Retrieved from http://searchsecurity.techtarget.com/searchSecurity/downloads/StephenMencik.ppt

7) Security Controls & Risk Acceptance

Lennon, E. IT Security Metrics. Retrieved from http://www.itl.nist.gov/lab/bulletns/bltnaug03.htm

20 Critical Security Controls. Retrieved from http://www.sans.org/critical-security-controls/

8) Reporting

Elements of a Good Security Assessment Report. Retrieved from http://searchenterprisedesktop.techtarget.com/tip/0,289483,sid192_gci1235715,00.html

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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.

APUS Assignment Rubric Graduate Level 600+	EXEMPLARY LEVEL 4	ACCOMPLISHED LEVEL 3	DEVELOPING LEVEL 2	BEGINNNIG LEVEL 1	TOTAL POINTS
FOCUS/THESIS	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
CONTENT/SUBJECT KNOWLEDGE	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 concerning 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
CRITICAL THINKING	Student demonstrates a	Student exhibits a good	Student takes a common,	Student demonstrates	20

APUS Assignment Rubric Graduate Level 600+	EXEMPLARY LEVEL 4	ACCOMPLISHED LEVEL 3	DEVELOPING LEVEL 2	BEGINNNIG LEVEL 1	TOTAL POINTS
SKILLS	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.	

APUS Assignment Rubric Graduate Level 600+	EXEMPLARY LEVEL 4	ACCOMPLISHED LEVEL 3	DEVELOPING LEVEL 2	BEGINNNIG LEVEL 1	TOTAL POINTS
ORGANIZATION OF IDEAS/FORMAT	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
WRITING CONVENTIONS (GRAMMAR & MECHANICS)	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.	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.	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.	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.	20

APUS Assignment Rubric Graduate Level 600+	EXEMPLARY LEVEL 4	ACCOMPLISHED LEVEL 3	DEVELOPING LEVEL 2	BEGINNNIG LEVEL 1	TOTAL POINTS
USE OF COMPUTER TECHNOLOGY/ APPLICATIONS	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
TOTAL POINTS					100