# American Public University System

The Ultimate Advantage is an Educated Mind

School of Science and Technology Department of Information Technology ISSC368: IT Security: Physical and Peripheral Defense 3 Credit Hours 8 Week Course Prerequisite(s): None

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## **Instructor Information**

Instructor: (<u>Bio</u>) Email: Phone: Office Hours:

## **Course Description (Catalog)**

The course covers physical security requirements in a network enterprise on varying levels including physical protection against internal and external threats that may impact people, property, and other data and networked assets. Students will learn how to assess and protect these assets via multiple layers of physical security

## Course Scope

This course covers various aspects of physical security from the foundations to use of force in the event a breach of physical security.

## **Course Objectives**

The successful student will fulfill the following learning objectives:

**CO-1:** Analyze the benefits of integrating locks, lights, and alarms for increased physical security of data and identify deficiencies in standard operating procedures concerning physical security

CO-2: Evaluate the benefits basic security functions of locks, lights, and alarms

CO-3: Determine organizational needs for physical controls and evaluate their effectiveness

**CO-4:** Examine defense techniques against physical attacks and apply safeguards for probing facilities unbeknown to staff

**CO-5:** Identify the components of intelligence gathering and evaluate the correlation of aesthetics and employees in relation to levels of perimeter security

CO-6: Analyze organizational building structures and their vulnerability to various types of attacks

CO-7: Develop best practices for physical penetration testing

**CO-8:** Examine the roles of security personnel and how they impact data security, and create reports for presentation to management

#### **Course Delivery Method**

This course is designed to promote learner-centered activities and support the development of cognitive strategies and competencies necessary for effective task performance and critical problem solving. The course utilizes individual and group learning activities, performance-driven assignments, problem-based cases, projects, and discussions. These methods focus on building engaging learning experiences conducive to development of critical knowledge and skills that are applicable in professional contexts

#### Resources

# Required eBook - provided in the online classroom, under Resources

The Professional Protection Officer: Practical Security Strategies and Emerging Trends by IFPO. Butterworth-Heinemann/Elsevier Science and Technology (April 8, 2010). 603 pages. ISBN:1856177467/978-1-85617-746-7

Unauthorised Access: Physical Penetration Testing For IT Security Teams by W. Allsopp and K. Mitnick, Wiley (Sep 22, 2009). 303 pages. ISBN: 0470747617/978-0470747612. eBook ISBN: 978-0-470-97002-7

# Web-based Readings - if these links are no longer available, conduct a web search on the topics

## Software Requirements

- 1. Microsoft Office (MS Word, MS Excel, MS PowerPoint)
- 2. Adobe Acrobat Reader (Click here for free download)

#### **Evaluation Procedures**

The grading will be based on 7 graded assignments, 7 Discussion Forums, an individual project proposal paper with 3 elements proposal deliverables and final project proposal.

- There will be 7 Assignments (7 assignments worth 4% each) counting a total of 38% of the final grade. The assignments will be end of chapter security quizzes for selected chapters. These quizzes will reinforce concepts learned throughout the chapters. Assignments should be prepared in Microsoft Word and uploaded into the student folder by the due date.
- 2. There will be 7 graded Peer Discussions. For graded forums, answers should be 3-4 paragraphs with supporting sentences using the terms, concepts, and theories from the required readings. Each answer should be a minimum of 250 400 words (about 6 to 8 good sentences). You may attack, support, or supplement other students' answers using the terms, concepts, and theories from the required readings. All responses should be a <u>courteous paragraph</u> that contains a topic sentence with good supporting sentences. You must respond to at least 2 of your classmates with value added comments for full credit consideration throughout the graded week. You may respond multiple times with a continuous discussion with points and counter points. The key requirement is to express your idea and then support your position using the terms, concepts and theories from the

<u>required readings</u> to demonstrate to me that you understand the material. The Forum postings will count as 35% (5% for each graded discussion posting) of the final grade.

3. There will be a Course Access Control Project (15%) with Project Acknowledgement (4%), Project outline (8%), and Presentation (8%), all totaling 35% of your final grade. There will 1 one hour long and non-proctored quiz in Week 3 which counts as 10% of the final grade. It will be a combination of multiple-choice and true-false and will be open book and open note.

All assignments, Forum question responses, and the quiz are due by 12:00 midnight Eastern Time Sunday of the week assigned.

Grade Instruments	% of Final Grade
Weekly Assignments (Weeks 1 -7) (4 point each)	28%
Graded Forum Posts (Weeks 1 -7) (5 points each)	35%
Project Proposal Deliverable (Week 2)	5%
Project Proposal Deliverable (Week 4)	5%
Project Proposal Deliverable (Week 6)	5%
Project Proposal Final Deliverable (Week 8)	22%
TOTAL	100%

Project Proposal Deliverable:

Week 2: Communication and Security Awareness Proposal Week 4: Physical Security and Access Control Proposal Week 6: Workplace Crime and Violence Proposal Week 8: Final Project Proposal Final

# Final Course Project Proposal (22%)

You have been hired as the new protection officer for ESL Inc. ESL Inc. has a large facility over 900 employees can be in at any given time. The organization has core hours from 8 AM to 6 PM but workers arrive at the organization as early as 6 AM and leave as late as 9 PM. The organization has 3 guards that work core hours only, posted at the front entrance to the building. Employees have badges that have their picture and key cards that let them in the building. The security guards open the door and check badges in the event a key card does not work. There is no security to prevent users from getting on the grounds, the front of the organization is off a major highway, and the back of the plant is backs up to acres of undeveloped woods. ESL Inc was just awarded a federal contract and after the site visit they were told they would lose the lucrative contract if they did not make their organization secure.

As the new protection officer, you are to create a comprehensive proposal to make the facility secure which includes the following elements:

- New adequate security staffing levels and shifts
- Effective plan to increase communications
- Plan to raise security awareness in the organization
- Automation operations plan
- A new patrol plan
- A comprehensive Physical Security Plan
- Access Control Plan

- Fire and other hazard plan
- Approach to prevent and mitigate workplace crime
- Emergency response plan
- Surveillance plan

This sounds like a great deal of information, but you should rely on the information in the text to create your proposal using APA format. You should also utilize the APUS library to support your recommendations with references from relevant research in physical security and other relevant topics. I strongly suggest you do not wait until the last week to attempt this proposal, but work on this throughout the course.

## **Grading Scale**

Please see the

<u>https://mailbox.apus.edu/exchweb/bin/redir.asp?URL=http://www.apus.edu/student-handbook</u>student handbook to reference the University's grading scale.

# **Course Outline**

Week	Торіс	Learning Objectives	Reading(s)	Assignment(s) (*Graded)
1	Physical Security Foundations and the Protection Officer	CO1	The Professional Protection Officer Chapters 1 -5	Forum: DQ#1* Week 1 Assignment
2	Security Communications and Awareness	CO2	The Professional Protection Officer Chapters 6 -8	Forum: DQ#2 Week 2 Assignment* Week 2 Project Proposal Deliverable*
3	Protection Officer Automation tools	CO3	The Professional Protection Officer Chapters 9 -12	Forum: DQ#3* Week 3 Assignment*
4	Physical Security and Access Control	CO3,4, 7 & 5	The Professional Protection Officer Chapters 13 -17	Forum: DQ#4 Week 4 Assignment* Week 4 Project Proposal Deliverable*
5	Workplace Safety and Violence	CO5 & 6	The Professional Protection Officer Chapters 18 -26	Forum: DQ#5* Week 5 Assignment*
6	Risk Management	CO6 & 8	The Professional Protection Officer Chapters 27 -30	Forum: DQ#6 Week 6 Assignment* Week 6 Project Proposal Deliverable
7	Crime and Investigations	CO6 & 8	The Professional Protection Officer Chapters 31 -35	Forum: DQ#7* Week 7 Assignment*

	Legal Aspects of	CO1 & 8	The Professional	Final Project Due*
8	Security and Use		Protection Officer	
	of Force		Chapters 36 -40	

#### Policies

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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 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 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 per day. 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:** <u>Turnitin.com</u> is a tool to improve student research skills that also detect plagiarism. Turnitin.com provides resources on developing topics and assignments that encourage and guide students in producing papers that are intellectually honest, original in thought, and clear in expression. This tool helps ensure a culture of adherence to the University's standards for intellectual honesty. Turnitin.com also reviews students' papers for matches with Internet materials and with thousands of student papers in its database, and returns an Originality Report to instructors and/or students.
- Smarthinking: Students have access to 10 free hours of tutoring service per year through Smarthinking. Tutoring is available in the following subjects: math (basic math through advanced calculus), science (biology, chemistry, and physics), accounting, statistics, economics, Spanish, writing, grammar, and more. Additional information is located in the Online Research Center. From the ORC home page, click on either the "Writing Center" or "Tutoring Center" and then click "Smarthinking." All login information is available.

Selected Bibliography

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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	EXEMPLARY	ACCOMPLISHED	DEVELOPING	BEGINNNIG	TOTAL
Undergraduate Level 300-400	LEVEL 4	LEVEL 3	LEVEL 2	LEVEL	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 SKILLS	Student demonstrates a 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.	Student exhibits a good 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.	Student takes a common, 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.	Student demonstrates 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.	20
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	Student provides an effective display of good writing and grammar. Assignment reflects student's ability to select appropriate word usage	Assignment reflects basic writing and grammar, but more than 5 errors. Key terms and concepts are somewhat vague and not completely explained by	Topics, concepts, and ideas are not coherently discussed or expressed in assignments. Student's writing style is weak and needs	20

	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.	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.	student. Student uses a basic vocabulary in assignment. Student's writing ability is average, but demonstrates a basic understanding of the subject matter.	improvement, along with numerous proofreading errors. Assignment lacks clarity, consistency, and correctness. Student needs to review and revise assignment.	
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