# American Public University System

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**School of Security & Global Services
CMRJ497
Forensic Criminal Justice Capstone
3 Credit Hours
8 Weeks**

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## Table of Contents

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## Instructor Information

**Instructor:** See information provided in the Syllabus link in the classroom

**Email:** Please use internal classroom messaging system

## Course Description (Catalog)

This course is designed to be the final class taken in the B.S. in Criminal Justice with a concentration in Digital Forensics program. The class will be an 8 week course during which students will be required to complete work which will demonstrate a mastery of their program. It is designed to be a meaningful culmination of their learning and to assess their level of mastery of the stated outcomes of their degree requirements. Topics covered during the capstone will allow students to review, analyze, and integrate the work the student has completed towards their degree. NOTE: All required, core, and major courses must be completed prior to enrollment in this course. SENIOR standing is required.

## Course Scope

Integrates various techniques used in the study of Forensic Science and applies them to the interpretation of facts and the reconstruction of the sequence of events at violent crime scenes. The Forensic Science discipline encompasses medical, scientific, sociological, and legal methodology as it applies to investigations and these approaches will be reviewed using a variety of forensic literature and text resources. In the course we will discuss currently used techniques as well as emerging technology used to solve crime and evaluate new and cold case crimes.

## Course Objectives (CO)

**Upon successful completion of this course, the student will be able to:**

CO1: Recognize and explain the major international, U.S., and localized law enforcement systems and organization.

CO2: Describe and analyze the political and public administrative aspects of law enforcement organizations.

CO3: Communicate and apply the major theories and concepts of crime, criminal justice, and criminology.

CO4: Conduct research associated with criminal justice and criminology

theories.

CO5: Assess the operations, practices, and processes associated with leading standards of evidence and law.

CO6: Examine common incident response procedures via basic computer investigation processes and a good computer forensics lab for the development of investigative reports following first responder procedures.

CO7: Investigate forensics of wireless network attacks caused by mobile and wireless peripheral devices, and then evaluate security and access procedures within wireless Internet use of subject search warrants and chain of custody in a forensic investigation.

CO8: Explore Web attacks, router forensics, email tracking techniques, email crime, and network forensics through investigation logs.

CO9: Discuss corporate espionage and prevention techniques and computer-related crimes, such as sexual harassment and child pornography and the law.

CO10: Analyze image files using forensic processes, recovered files on deleted partitions, data acquisition and duplication procedures, and steganography tools to create a forensic investigation case.

CO11: Analyze file systems, hard disks, various types of digital media, tools, and applications that utilize password cracking on various operating systems.

## Course Delivery Method

This course delivered via distance learning will enable students to complete academic work in a flexible manner, completely online. Course materials and access to an online learning management system will be made available to each student. Online assignments are due by Sunday evening of the week as noted and include Forum questions (accomplished in groups through a threaded forum), examination, and individual assignments submitted for review by the Faculty Member). Assigned faculty will support the students throughout this sixteen-week course.

## Course Resources

See your Lessons for a weekly list of assigned textbook excerpts and website readings, and power point presentations.

Recommended resource:
*Publication Manual of the American Psychological Association* (7th ed.). (2019). Washington, D.C.: American Psychological Association.

## Software Requirements

Microsoft Office (MS Word)

## Evaluation Procedures

**There are a total of 100 points for this course broken down as follows:**

| Grade Instruments | % of Final Grade |
|---|---|
| Introduction | 1% |
| Forums (7) | 44% |
| Annotated Bibliography | 10% |
| Draft Paper | 10% |
| Research Paper | 30% |
| Peregrine Testing | 5% |
| Total | 100% |

### Forums

Original responses to the forum questions each week need to be substantial (350-500 words per question) and significantly supported by the course textbook and at least one other scholarly source. The citation and references will be in APA Style (7th Edition). Sources used for studies or statistical information should be less than 10 years old. Direct quoting should be limited. Interpretation in your own words is expected.

The Forum is our life link for this course. I expect the Forum to be read frequently by all and I expect everyone to invest significant time and energy in creating high-quality interactions and excellent dialogues. This is where ideas are bounced off of each other and discussions are to be generated about our topic of the week. Response postings are required to be a minimum of 150 words.

## Forum Grading Criteria:

Your forum/assignment grade will be encompassing both your original posting and your responses to others work. Work will be graded when the student has completed the entire assignment.

Online assignments submitted for grading are due by the last day of each. All Forum main postings are to be posted no later than Thursday evening at 11:55pm eastern each week. This allows time for others to respond to your posting.

Students will also be required to respond to at least two (2) other students posting with significant comments that have substance. Comments such as, "Good job!" or "I agree" do not earn you any participation points. Your responses to another's work should be posted as a sub-thread to the student's original posting whom you are commenting. All responses are due no later than Sunday at 11:55pm eastern hours.

## Annotated Bibliography:

Submit an annotated bibliography by no later than Sunday of Week 2. Late submissions of this assignment will not be accepted. More info on annotated bibliographies may be found at the Purdue Owl Writing web site i.e., http://owl.english.purdue.edu/owl/resource/614/01/

Your annotated bibliography should contain no less than 10 peer reviewed sources.

## Draft Paper:

The student will submit a draft of the Final Paper during Week 6. The paper will be returned with feedback during Week 7. This will enable the student to

submit a higher quality final paper if the recommendations are followed. See specific instructions for each assignment in the classroom.

## Criminal Justice Digital Forensics Capstone Paper:

This assignment is to write a scholarly capstone paper that is to be based on a digital forensic discipline or new digital forensic field that is using fairly new technology to investigate crime. This will be submitted in Week 8.

The paper is to be in APA format (7th Edition) and the body of the paper is to be 8-10 pages in length. The body of the paper does not include the title page or references. A minimum of five scholarly peer reviewed sources should be used. Be aware that this is the minimum and a typical research paper should extend beyond the minimum.

Reference lists from texts and articles related to topic are good sources for references. Use of newspapers, news magazines, and similar periodicals must be kept to a minimum, and will be acceptable only as sources for supplementary information. References like "Wikipedia," "Psychology Today," and "Court TV" are not primary sources, are not peer reviewed (reviewed for empirical integrity, accuracy, and authenticity), and are not appropriate references for scholarly writing (with the possible exception of use for anecdotal background information).

This paper will demonstrate the student's ability to research and reason, incorporating the cognitive skills of analysis, synthesis, evaluation, defense of logic, and conclusions.

## Peregrine Testing:

In Week 8 you will be required to take an assessment through the Peregrine Testing site. For your convenience, a link titled "Peregrine Testing" has been added to the left hand navigation bar, which will take you through the registration and testing process.

As one of the final assessments of your program, your score will affect your completion of this course and ultimately your graduation. Your exam score, once sent back to the classroom, will be recalculated (see Lessons/Course Information/Peregrine Assessment for score conversion chart below) within

hours of the score being returned to help determine your final score for the course. If you have any questions about your final score, please reach out to your professor as soon as possible.

The test will include 90 multiple choice questions. You will  be allowed three 15 minute breaks. You can exit and resume the test, but you will only be able to do so 3 times over a 48 hour period.

When you are ready to begin, click on "Peregrine Testing". You will be taken to the registration page for the exam. The majority of your student information will already be filled out, and you will just be required to select your program and concentration (these will not affect the contents of the tests). Click on "Confirm". Read all information on the following pages carefully.  The timer will start when you click "Begin Exam".

Score Conversion Chart:

| Peregrine Score | Relative Interpretation of Student Competency | Outbound Exam Grade/Points |
|---|---|---|
| 80-100% | Very High | Pass with Distinction/100pts |
| 70-79% | High | Pass/90pts |
| 60-69% | Above Average | Pass/80pts |
| 40-59% | Average | Pass/70pts |
| 30-39% | Below Average | Fail/50pts |
| 20-29% | Low | Fail/40pts |
| 0-19% | Very Low | Fail/20pts |

## Course Outline

| Weeks | Topic | Objectives | Readings | Assignments |
|---|---|---|---|---|
| 1 | Criminal Justice Administration, Organization, Theories, and Concepts | Course Learning Objectives<br><br>CO1: Recognize and explain the major international, U.S., and localized law enforcement systems and organization.<br><br>CO2: Describe and analyze the political and public administrative aspects of law enforcement | See electronic source listing in Lessons | **Mandatory Introduction Assignment**<br><br>**Forum** |

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.

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| | | organizations.<br><br>CO3: Communicate and apply the major theories and concepts of crime, criminal justice, and criminology.<br><br>CO5: Assess the operations, practices, and processes associated with leading standards of evidence and law.<br><br>Module Objectives<br><br>MO1:  Examine two departmental policies for the collection of evidence and the relationship to the law.<br><br>MO2:  Analyze and contrast department policies for the collection of evidence in relation to the criminal justice system's general practices for collecting and maintaining evidence.<br><br>MO3:  Analyze department evidence collection policies for best practices recognized in the U.S. and other international norms. | | |
| **2** | Computer and Wireless Investigations | Course Learning Objectives<br><br>CO6: Examine common incident response procedures via basic computer investigation processes and a good computer forensics lab for the development of investigative reports following first responder procedures.<br><br>CO7: Investigate forensics of | See electronic source listing in Lessons | **Forum**<br><br>**Annotated Bibliography** |

| | | wireless network attacks caused by mobile and wireless peripheral devices, and then evaluate security and access procedures within wireless Internet use of subject search warrants and chain of custody in a forensic investigation.<br><br>Module Objectives<br><br>MO1:  Analyze current wireless networks attack methodologies.<br><br>MO2:  Evaluate wireless network attack methods and current network protection models.<br><br>MO3:  Evaluate current trends in wireless network attacks and how to investigate wireless intrusions. | | |
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| **3** | Online attacks and corporate Espionage – Part 1 | Course Learning Objectives<br><br>CO8: Explore Web attacks, router forensics, email tracking techniques, email crime, and network forensics through investigation logs.<br><br>CO9: Discuss corporate espionage and prevention techniques and computer-related crimes, such as sexual harassment and child pornography and the law.<br><br>Module Objectives<br><br>MO1:  Analyze current wireless networks attack methodologies.<br><br>MO2:  Evaluate wireless network attack methods and current network protection models. | See electronic source listing in Lessons | **Forum** |

| | | MO3: Evaluate current trends in wireless network attacks and how to investigate wireless intrusions. | | |
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| **4** | Online attacks and corporate Espionage – Part 2 | Course Learning Objectives<br><br>CO8: Explore Web attacks, router forensics, email tracking techniques, email crime, and network forensics through investigation logs.<br><br>CO9: Discuss corporate espionage and prevention techniques and computer-related crimes, such as sexual harassment and child pornography and the law.<br><br>Module Objectives<br><br>MO1: Analyze current wireless networks attack methodologies.<br><br>MO2: Evaluate wireless network attack methods and current network protection models. | See electronic source listing in Lessons | **Forum** |
| **5** | Files and file systems – Part 1 | Course Learning Objectives<br><br>CO10: Analyze image files using forensic processes, recovered files | See electronic source listing in Lessons | **Forum** |

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| | | on deleted partitions, data acquisition and duplication procedures, and steganography tools to create a forensic investigation case.<br><br>CO11: Analyze file systems, hard disks, various types of digital media, tools, and applications that utilize password cracking on various operating systems.<br><br>Module Objectives<br><br>MO1: Analyze current wireless networks attack methodologies.<br><br>MO2: Evaluate wireless network attack methods and current network protection models. | | |
| **6** | Files and file systems – Part 2 | Course Learning Objectives<br><br>CO10: Analyze image files using forensic processes, recovered files on deleted partitions, data acquisition and duplication procedures, and steganography tools to create a forensic investigation case.<br><br>CO11: Analyze file systems, hard disks, various types of digital media, tools, and applications that utilize password cracking on various operating systems.<br><br>Module Objectives<br><br>MO1: Analyze current wireless networks attack methodologies.<br><br>MO2: Evaluate wireless network | See electronic source listing in Lessons | **Forum**<br><br>**Draft Paper** |

| | | attack methods and current network protection models. | | |
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| **7** | Digital Forensic Science Overview – Part 1 | Course Learning Objectives<br><br>CO1: Recognize and explain the major international, U.S., and localized law enforcement systems and organization.<br><br>CO2: Describe and analyze the political and public administrative aspects of law enforcement organizations.<br><br>CO3: Communicate and apply the major theories and concepts of crime, criminal justice, and criminology.<br><br>CO4: Conduct research associated with criminal justice and criminology theories.<br><br>CO5: Assess the operations, practices, and processes associated with leading standards of evidence and law.<br><br>Module Objectives<br><br>MO1: Analyze current wireless networks attack methodologies.<br><br>MO2: Evaluate wireless network attack methods and current network protection models.<br><br>MO3: Evaluate current trends in wireless network attacks and how to investigate wireless intrusions. | See electronic source listing in Lessons | **Forum** |

| 8 | Digital Forensic Science Overview – Part 2 | Course Learning Objectives<br><br>CO1: Recognize and explain the major international, U.S., and localized law enforcement systems and organization.<br><br>CO2: Describe and analyze the political and public administrative aspects of law enforcement organizations.<br><br>CO3: Communicate and apply the major theories and concepts of crime, criminal justice, and criminology.<br><br>CO4: Conduct research associated with criminal justice and criminology theories.<br><br>CO5: Assess the operations, practices, and processes associated with leading standards of evidence and law.<br><br>Module Objectives<br><br>MO1: Analyze current wireless networks attack methodologies.<br><br>MO2: Evaluate wireless network attack methods and current network protection models.<br><br>MO3: Evaluate current trends in wireless network attacks and how to investigate wireless intrusions. | See electronic source listing in Lessons | **Final Project**<br><br>**Peregrine Testing** |

## 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
Disability Accommodations

## 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

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 the latest edition of the *Publication Manual of the American Psychological Association.*

 **Information is also available at web links:**

http://www.apastyle.org/

http://owl.english.purdue.edu/owl/resource/560/24/

## 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. The instructor has discretion as to whether late work will be accepted.

## NETIQUETTE

Online universities promote the advance of knowledge through positive and constructive debate--both inside and outside the classroom. Discussions on the Internet, however, can occasionally degenerate into needless insults and "flaming." Such activity and the loss of good manners are not acceptable in a university setting--basic academic rules of good behavior and proper "Netiquette" must persist. Remember that you are in a place for the fun and excitement of learning that does not include descent to personal attacks, or student attempts to stifle the discussion of others.

- **Technology Limitations:** While you should feel free to explore the full-range of creative composition in your formal papers, keep e-mail layouts simple. The Educator classroom may not fully support MIME or HTML encoded messages, which means that bold face, italics, underlining, and a variety of color-coding or other visual effects will not translate in your e-mail messages.

- **Humor Note:** Despite the best of intentions, jokes and--especially--satire can easily get lost or taken seriously. If you feel the need for humor, you may wish to add "emoticons" to help alert your readers:  ;-),  : ),  ☺

## Disclaimer Statement

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

| Online Library |
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The Online Library 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 Online Library provides access to special learning resources, which the University has contracted to assist with your studies. Questions can be directed to **librarian@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.
- *Tutor.com*: AMU and APU Civilian & Coast Guard students are eligible for 10 free hours of tutoring provided by APUS. Tutor.com connects you with a professional tutor online 24/7 to provide help with assignments, studying, test prep, resume writing, and more. Tutor.com is tutoring the way it was meant to be. You get expert tutoring whenever you need help, and you work one-to-one with your tutor in your online classroom on your specific problem until it is done.

**Request a Library Guide for your course (http://apus.libguides.com/index.php)**

The AMU/APU Library Guides provide access to collections of trusted sites on the Open Web and licensed resources on the Deep Web. These are specially tailored for academic research at APUS:

- Program Portals contain topical and methodological resources to help launch general research in the degree program. To locate, search by department name or navigate by school.
- Course Lib-Guides narrow the focus to relevant resources for the corresponding course. To locate, search by class code (e.g., SOCI111) or class name.

If a guide you need isn't available yet, let us know by emailing the APUS Library: librarian@apus.edu

## Turnitin.com

**Turnitin.com** is a web-based [plagiarism](#) prevention application licensed, for campus use, through the APUS Online Library. Students will not have to submit papers to Turnitin. The assignment section automatically checks student's work and the class instructor will check other assignments as needed.

Turnitin.com analyzes electronic submissions of student writing, compares them to the contents of a huge online database, and generates a customized Originality Report. The database used to produce this analysis contains a massive collection of documents available on the Internet from both free and commercial sources, as well as the full texts of all other papers that have been previously submitted to Turnitin.com.

Similarity index is based on the amount of matching text to a submitted paper:

| | |
|---:|:---|
| Blue = | no matching text |
| Green = | one word to 24% matching |
| Yellow = | 25 -49% matching text |
| Orange = | 50-74% matching text |
| Red = | 75-100% matching text |