American Public University System

The Ultimate Advantage is an Educated Mind

**School of Science, Technology, Engineering, and Math
Department of Information Technology
ISSC699 Cybersecurity Studies: Capstone
3 Credit Hours
16 Week Course
Prerequisite(s): All program courses must be completed prior to registering for this course**

Table of Contents

NOTE: ANY CHANGES TO THIS SYLLABUS MUST BE APPROVED BY THE COURSE PROGRAM DIRECTOR

Course Description (Catalog)

This Master's degree capstone course in Cybersecurity Studies is an integrative, multi-disciplinary course that applies the knowledge, skills, and attitudes obtained in the core courses. This course may not be taken until all other courses are COMPLETED and student has a 3.0 GPA. [3 Credit Hours]

This course is the capstone course of studies completed toward the graduate degree in Cybersecurity Studies. This course will only be offered in 16 week sessions. Students will complete a research thesis or creative project that demonstrates mastery and application of advanced research and analytic skills related to the learning outcomes of this degree program. Students must submit a research proposal, preferably two months prior to enrolling in the course to obtain approval from the Cybersecurity Program Director.

Course Scope

This course is the culmination of theory, principles, best industry practices, methodologies, tools, and technologies associated with information technology in the marketplace. The Capstone seminar uses scholarly research methods to develop analytic, problem-solving, and research skills required to solve real-world technological problems. It is in-depth and requires critical thinking at the higher learning level as students are expected to solve relevant problems and conflicts, analyze and synthesize "what if" scenarios predict and

draw conclusions, and evaluate and make recommendations. Since the course is designed as a capstone experience, the course may include topics such as: database systems, object- oriented analysis and design, information technology project management, information technology security, and computer forensics as a reinforcement of previous courses. It requires concise exposition, and informed library research utilizing skills developed throughout the program. Students completing this course will receive substantial guidance and support from the instructor and classmates during the completion of the required thesis or creative project. The course also sets the stage for application to doctoral programs in the discipline or other advance level studies.

Course Objectives

A successful student will fulfill the following learning objectives:

CO1 – Analyze the knowledge, skills, attitude, and learning from the core courses

CO2 – Compare and contrast the policies, practices, perspectives and products from various disciplines required to address national and global cyberthreats

CO3 – Appraise the cybersecurity related risk and vulnerability of various critical infrastructures

CO4 – Design strategies to discover and detect cyberattacks, cyberwarfare, and cyberterrorism

CO5 – Develop an interdisciplinary plan to appraise, manage, mitigate, and prevent cyberattacks, cyberwarfare, and cyberterrorism

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 discussion board), examination, and individual assignments (submitted for review by the Faculty Member). Assigned faculty will support the students throughout this sixteen-week course.

Course Materials

Required Course Textbooks: This course uses a comprehensive overview of previously used resources and textbooks from core courses in the program. There is no core book for this course. References are drawn from current literature reviewed and previous resources based on the thesis, major research paper, or project elected to complete. However, please note the following:

Additional Resources:

Hughes, M. A., & Hayhoe, G. F. (2010). *A Research Primer for Technical Communication: Methods, Exemplars, and Analyses.* New York, NY. Routledge Taylor and Francis Group. ISBN: 978-0805863352 / 0805863354

Kumar, R. (2005). *Research Methodology: a step-by-step guide for beginners.* (2nd edition). Thousand Oaks, CA. Sage Publications. ISBN: 978-1412911948 / 141291194X

American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th edition). Washington, DC: Author. ISBN: 1-4338-05618

Blackley, J. A., Peltier, J., & Peltier, T. (2013) *Information Security Fundamentals, 2nd Edition.* CRC Press. ISBN: 9781439810620 / 9781439810637

Bayuk, J. L., Healey, J., Rohmeyer, P., Sachs, M. H., Schmidt, J., Weiss, J. (2012). Cyber Security Policy Guidebook. John Wiley & Sons, Inc. Hoboken, New Jersey. ISBN: 978-1118027806 / 1118027809

Websites: Additional useful resources. Please abide by the university's academic honesty policy when using Internet sources as well. Note Web site addresses are subject to change.

Site Name	Website URL/Address
What is the APA Style and When Should I Use It?	http://www.apus.edu/Online-Library/tutorials/apa.htm
Turnitin: Plagiarism Prevention Software	http://www.apus.edu/Online-Library/tutorials/index.htm#turnitin
College Research Writing	http://www.apus.edu/Online-Library/tutorials/writing.htm
Research Papers	http://www.apus.edu/Online-Library/tutorials/writing.htm#research_papers
Research Primer: Welcome to Academia – Online Style	http://www.apus.edu/Online-Library/tutorials/research_primer.htm

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, are the conclusions you draw from those details, and your predictions, responses to, and ultimate interpretation of those details.

NOTE: We will use the ONLINE edition of the American Psychological Association's Publication Manual for ALL of the class writing and formatting styles. If you do not already have the book, it is wise to get a copy ASAP.

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

Readings, Assignments and Classroom Participation Requirements

Grade Instrument	Percentage
Forum Activities (16 Weekly Forums)	30%
Assignments (4 – 5% each)	20%
Final Project Assignments (4 – 12.5% each)	50%
Total	100

This course requires disciplined independent practice and individual completion of assignments. Although Online Learning provides students with a flexible schedule to meet the student's professional, personal, and academic responsibilities, students are expected to follow the Student Course Guide and submit assignments on time and on schedule. Unless otherwise arranged, all accepted late weekly assignments will lose 10 points—late thesis or creative project will lose one full letter grade. All work must be submitted by the end of the class session. As adults, students, and working professionals have competing demands for time. Should students need additional time to complete an assignment, please contact the course instructor before the due date, so that the student and the instructor can discuss the situation and determine an acceptable resolution. Routine submission of late assignments is unacceptable and may result in points deducted from the final course grade. Again, 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.

Weekly Forum Activities

➢ Most weeks you will participate in discussion activities. Each forum activity will consist of one or more threads/topics. The questions are designed to allow you to apply the concepts you have learned to real-world scenarios or hypothetical but realistic situations.

➢ For the benefit of the course and to promote interaction, post your initial response to the discussion question(s) in assigned thread prior to 11:59 p.m. Eastern Time on Wednesday except for the first week of the class. Your initial post should at least be 250 words or more. Please do not post your initial response late as your classmates will rely on your timely post to stimulate the discussion and offer critical insights for later postings.

➢ Continue to read your classmates' posts and post at least two follow-up posts to your classmates' posts in each thread prior to 11:59 p.m. Eastern Time on Sunday. Your follow-up posts should at least be 150 words or more. 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.

➢ 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 "Good post." You must use your follow-up posts as a way to continue the discussion at a higher level of thinking, particularly since you are interacting at the graduate level. Be sure to read the follow-up posts to your own posts and reply to any question or request 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 participation is a large part of your grade, for which quality and depth in participation are expected.

➢ Students are required to include APA style in-text citations from sources used within each post to add credibility and promote research. Each in-text citation should have a corresponding entry, in APA format, in a reference list at the end of the post. You are required to cite a minimum of two sources in your initial post. Also, as a minimum,

your follow-up posts must contain at least one support source such as a journal article or webpage with in-text citation(s).

Topic/Table of Contents (Appendix 9: Sample of a Table of Contents)

Topic and Table of Contents are due at the end of Week 2. Please review Appendix 9 - Sample Page of a Table of Contents.

➢ For week two, submit your topic and the outline, which will be a plan for the TOC.
➢ You will submit a similar document as illustrated in Appendix 9.

Formal Proposal (Master's Capstone: Thesis Option and Master's Capstone: Creative Project)

A formal proposal is due at the end of **Week 3**. By this time, you would have selected a topic and provided a proposal outline for your thesis or creative project of which must align with your core subject area. Please use the **Capstone Manual** and **template** in the classroom for this assignment. The formal proposal must provide a clear and lucid description of a question, project or problem and a proposed method of answering the question, addressing the project or solving the problem. Proposal drafting is considered a learning process and helps you avoid oversights and possible mistakes; so you may send me a draft before going final. Guidance on the format of the proposal and a sample proposal are contained in the **Capstone Manual** provided. The proposal should explain the question, project, or problem to be investigated and convince the professor that the question, project or problem merits investigation. It should show that you have read the relevant and recent literature on the subject and it should contain a list of materials consulted during the preliminary stages of your thesis or project. In general, the thesis proposal or creative project should include background information related to the thesis topic or project, purpose of the thesis or project, and investigatory procedures to be used. The formal proposal should not exceed five (5) pages (proposal title page not included). When the proposed thesis or project involves the study of human subjects and/or animals an Institutional Review Board review and approval of the proposed research is required. Please visit http://www.apus.edu/community-scholars/institutional-review-board/research.htm for more guidance—this process takes about a month to complete. Once your proposal is approved, you will work closely with your professor as you develop and address your topic.

Thesis or Creative Project Introduction (See Appendix 1: MA Theses and Appendix 2: MA Creative Project of the 2012 Capstone Manual)

An Introduction is due at the end of Week 5. **The thesis introduction** will allow you to identify specific research question (s) and set the general context for the study. This section should include:

➢ The background of the topic
➢ Statement of the problem – a statement of the problem or general research question and context leading to a clear statement of the specific research question. Background and contextual material justifying why this case or topic should be studied
➢ Statement of the purpose – a purpose statement
➢ Research questions
➢ Significance of the study
➢ Definitions of unclear terms

➢ Limitations/delimitations (you may also provide in the Methodology area as well),
➢ Assumptions
➢ Theoretical framework

The creative project is expected to contain the following elements in the introduction:

➢ Provide a clear and lucid description of the creative project including the goal and intent of the project.
➢ Provide a weekly schedule and objectives for the work to be completed in 16 weeks
➢ Provide a sponsor who will sign and validate the work

Similarly, the introduction identifies your specific creative project and sets the general context for it.

Thesis or Creative Project Research Design (See the Capstone Manual)

Research Design is due at the end of Week 7: describe how you will test the hypothesis and carry out your analysis. This section describes the data to be used to test the hypothesis, how the student will operationalize and collect data on his/her variables, and the analytic methods that to be used, noting potential biases and limitations to the research approach. It should include:

➢ Identification and operationalization (measurement) of variables.
➢ A sampling plan (i.e., study population and sampling procedures, if appropriate).
➢ Justification of case studies used.
➢ Data collection/sources (secondary literature, archives, interviews, surveys, etc.).
➢ A summary of analysis procedures (pattern-matching, etc.); and
➢ Limitations of study and bias discussion.

Thesis or Creative Project Research Design (See the Capstone Manual)

A 25 page literature review is due at the end of Week 8. The literature review focuses on how the creative project experience fits into the discipline. Specifically, it introduces the project and places it in a larger context that includes a discussion of how this experience helps the student meet the program objectives. It provides the current state of accumulated knowledge as it relates to the project.

➢ Describe how completing this project is consistent with the course of study.
➢ Articulate the objectives the student hopes to achieve through the completion of this project.
➢ Provide a short conclusion and transition to the next section.

Thesis Literature Review: reviews the literature on a specific research question. The literature review focuses on discussing how other researchers have addressed the same or similar research questions. It introduces the study and places it in larger context that includes a discussion of why it is important to study this case. It provides the current state of accumulated knowledge as it relates to the student's specific research question.

➢ Summarize the general state of the literature (cumulative knowledge base) on the specific research question:

- o Study one: summarize to include researcher's findings, how those findings were obtained, and evaluation of biases in the findings.
- o Study two: summarize to include researcher's findings, how those findings were obtained, and evaluation of biases in the findings.
➢ Include a minimum of at least three of the most important studies.
➢ Include a short conclusion and transition to the next section.

To help you meet your final paper requirement. Please review the rubric and **Capstone Manual** for more specific guidelines on expectations; however, please note you are to provide comprehensive analysis of details, facts, and concepts in a logical sequence. You should demonstrate a higher- level of critical thinking necessary for 500-600 level work. You are to provide well-supported ideas and reflection with a variety of current and/or world views in the assignment. You are expected to present a genuine intellectual development of ideas throughout assignment. You should thoroughly understand and excel in explaining all major points. An original, unique, and/or imaginative approach to overall ideas, concepts, and findings is required. Overall format of assignment needs to include an appropriate introduction (or abstract), well- developed paragraphs, and conclusion. Finished assignment demonstrates your ability to plan and organize research in a logical sequence. **You are expected to use at least of 25 or more references in your literature review.**

Draft Thesis or Creative Project

Draft Thesis, Research Paper, or Project is at the end of Week 12. Please use the guidance in the **Capstone Manual** under Resources in the classroom for this assignment. The coordinating process requires consistent communication with you to ensure adequate feedback on draft paper on project. You are encouraged ask other faculty, professionals and leaders in your field of study to read and provide feedback on draft sections of your thesis, major research paper, or project where these faculty members and professionals may have special expertise. For example, the student's graduate research methods instructor may be asked for feedback on the research paper's research design.

Final Thesis or Creative Project

Your final thesis or project is due at the end of Week 15. This will include the requirements of the **Capstone Manual.** Again, please use the guidance in the **Capstone Manual** under Resources in the classroom for this assignment. You need to provide a minimum of **25 references** to support your **final thesis or creative projec**t.

FINAL PROJECT BLOG/WEBINAR (Check with your professor about the specifics for webinar presentation)

Now that you have completed your thesis or creative project, you are required to write a 500 words blog by the end of Week 16 of your paper and submit for grading. Depending on the quality of your blog, we publish it to the http://www.apus.edu/ctl/students/gradstudies/resources.htm website and other publically associated websites. You will get an opportunity to note the publication on your resume and contribute to the intellectual development of the discipline. Below is the requirement for the blog:

Guidelines for blogging:

➢ Aim for a max of 500 words. It's OK to go over this amount, but keep it concise and to the point.

➢ Include a 50 word bio for each post that includes the author's education and professional background as it relates to the content.

➢ Write in short, declarative paragraphs. Do not use APA style and avoid being overly formal in the narrative.

➢ Keep the tone of the piece conversational and write to the general public, or a prospective student who may be new to higher education. Personalize the discussion. If you're an expert in this area, write in first person narrative and be specific in your examples.

➢ Language should be compelling, with a tone of authority and academia. Cite any reference works, and make sure the content is universally understandable. If you're using statistics, format them into bulleted lists in order to break up the content.

➢ Focus on timely subjects. It's more compelling to readers if you discuss topical issues related to your program such as technical innovations, controversial issues, or new career paths. This helps to convey our focus on providing relevant, forward thinking education.

➢ Be comprehensive. If you're introducing an idea, or initiative write from beginning to end. Narrate the post with a purpose, and leave the reader with something to think

Submission Instructions for Webinar

• Use the provided slides as guidance
• You may use images from sites such as http://www.freedigitalphotos.net/
• Do not crowd your slides
• You will present the 30 minutes Webinar Saturday of WK16, starting at 4PM ET (coordinate with your professor)
• Exercise professionalism
• Submit the slides for grading and present in a webinar format for 50% of your grade!

Original Work

All work submitted must be original work. Incidents of academic dishonesty will result in you failing the assignment, and repeat incidents will result in failing the course. I check assignment regularly for incidents of academic dishonesty. Please read and understand the University policy on academic dishonesty. You must credit your sources and provide the appropriate references on your assignments.

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.

Please note that Wikipedia is NOT an acceptable source for use in your academic writing at APUS, due to the fact that it is open for editing by anyone and is not guaranteed to be reviewed for accuracy. Use your judgment when choosing sources and try to stick with articles and websites from reputable organizations that are likely to be accurate and authoritative, rather than blogs and wikis that are subjective in nature.

All weekly 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.

Grading Scale

Please see the Student Handbook to reference the University's Grading Scale.

Course Outline

Week	Topic(s)	Learning Objective(s)	Reading(s)	Supplemental Reading(s)	Assignment(s)
1	Introduction to the course topics and agenda	CO1, CO2, CO3	Articles on cybersecurity research	Articles on Emergency management perspectives on cybersecurity	• Introduce yourself in the Week 1 Introduction Forum (ungraded forum) • Participate in Week 1 Forum • Select your topic and begin to complete your Table of Contents for your thesis or creative project due Week 2
2	Research Methods Techniques	CO1, CO2, CO3	Articles on Research Methods and IRB	Articles on the history, development, and effects of cyberintelligence	• Submit your topic and Table of Contents (Appendix 9: Sample of a Table of Contents) • Review your articles/sources and begin writing your 25 - page literature review due Week 8 • Participate in Week 2 Forum on Selected Topic and the IRB Student Research Policy Forum
3	Creative Project/Thesis Proposal	CO1, CO2, CO3, CO4	Articles on Creative Project Proposals	Articles on security risk management, including techniques and loss prevention	• Submit your Creative Project/Thesis Proposal • Participate in Week 3 Forum on Formal Proposal • Review your articles/sources and continue writing your 25 - page literature review due Week 8
4	Creative Project/Thesis Proposal	CO1, CO2, CO3, CO4	Articles on Thesis Proposals	Articles on telecommunications and network security, including emerging threats	• Review your articles/sources and continue writing your 25 - page literature review due week eight • Participate in the Week 4 Forum on Thesis or Creative Project Introduction
5	Thesis or Creative Project Introduction	CO1, CO2, CO3, CO4, CO5	Articles on Research in Cybersecurity	Articles on computer forensics, including tools, procedures, and legislation	• Submit your Thesis or Creative Project Introduction • Participate in the Week 5 Forum on Literature Review Process • Review your articles/sources and continue writing your 25 - page literature review due Week 8

6	Thesis or Creative Project Introduction	CO1, CO2, CO3, CO4, CO5	Articles on Research in Cybersecurity	Articles on Cybercrime investigation and prevention	• Review your articles/sources and continue writing your 25 - page literature review due Week 8 • Participate in the Week 6 Forum on Literature Review Experience
7	Research Design	CO1, CO2, CO3, CO4, CO5	Articles on Research Design	Articles on Cyberlaws, ethics, intellectual property, and criminal prosecutions	• Submit your Research Design • Participate in the Week 7 Forum on Research Design • Review your articles/sources and continue writing your 25 - page literature review due Week 8
8	Research/Project in Cybersecurity	CO1, CO2, CO3, CO4, CO5	Articles on Research Design in Cybersecurity	Articles on national cyber threat landscape, cybersecurity challenges from both external entities and domestic sources	• Review your articles/sources and continue writing your 25 - page literature review due this week. • Submit your Draft Thesis Or Creative Project Literature Review • Participate in the Week 8 Forum on Methodology
9	Research/Project in Cybersecurity	CO1, CO2, CO3, CO4, CO5	Articles on Research Design in Cybersecurity	Articles on legal, social, regulatory, ethical, and technical issues related to securing information systems and national critical infrastructures	• Continue to work your Draft Thesis or Creative Project due Week 12 • Participate in the Week 9 Forum on Results
10	Research/Project in Cybersecurity	CO1, CO2, CO3, CO4, CO5	Articles on Research Design in Cybersecurity	Articles on interdisciplinary policies, practices, perspectives and products required to address the cyber threats to our information systems and critical infrastructures	• Continue to work your Draft Thesis or Creative Project due Week 12 • Participate in the Week 10 Forum on Discussion component of the paper
11	Research/Project in cybersecurity	CO1, CO2, CO3, CO4, CO5	Articles on Research Design in Cybersecurity	Articles on methodologies for performing vulnerability assessment, risk mitigation, auditing, and certification of information systems and critical infrastructures	• Continue to complete your Draft Thesis or Creative Project due Week 12 • Participate in Week 11 Forum
12	Research/Project in	CO1, CO2, CO3, CO4,	Articles on	Articles on cybersecurity related roles, responsibilities, and	• Submit your completed Draft Thesis or Creative Project

				policies for managers of critical infrastructures, national security, corporate security, criminal justice, and intelligence/counter intelligence	• Participate in Week 12 Forum
13	Research/Project in cybersecurity	CO1, CO2, CO3, CO4, CO5	Articles on	Articles on policies, practices, perspectives and products from various disciplines required to address national and global cyberthreats	• Continue to complete your Final Thesis or Creative Project due Week 15 • Participate in Week 13 Forum

14	Research/Project in cybersecurity	CO1, CO2, CO3, CO4, CO5	Articles on	Articles on cybersecurity related risk and vulnerability of various critical infrastructures	• Continue to complete your Final Thesis or Creative Project due Week 15
					• Participate in the Week 14 Forum
					• Final Thesis/Project answer the following questions:
					  • Why did you think it was important to study/research this topic or conduct this project?
					  • What are other studies in your literature review suggesting about this topic?
					  • What did you expect to find out from your study/research/project?
					  • What did your data illustrate?
					  • What are the main findings of your study/research/project?
					  • What explanation can you provide for the observed findings of your study/research/project?

15	Research/Project in cybersecurity	CO1, CO2, CO3, CO4, CO5	Articles on	Articles on designing strategies to discover and detect cyberattacks, cyberwarfare, and cyberterrorism	• Submit Final Thesis or Creative Project • Participate in the Week 15 Forum
16	Research/Project in cybersecurity	CO1, CO2, CO3, CO4, CO5	Articles on	Articles on developing interdisciplinary plans to appraise, manage, mitigate, and prevent cyberattacks,	• Complete and submit your Final Blog • Participate in the Week 16 Forum on Conferences and Publication

				cyberwarfare, and cyberterrorism	

Policies

Please see the student handbook to reference all University policies. Quick links to frequently question asked 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* (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.

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

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.
- *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** 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.

Selected Bibliography/Webliography

1. Social Research Methods: http://www.socialresearchmethods.net/

2. The Research Methodology: http://www.experiment-resources.com/research-methodology.html

3. Type of Research: http://www.researchamerica.org/public_opinion?gclid=CO_rg_jv0aMCFRr6iAoda3FWtg

4. Sage Research Methods Online: http://www.sagepub.com/srmo also http://www.methodspace.com

5. APA Format and Writing Style: http://www.apa.org

6. Busch, C., De Maret, P. S., Flynn, T., Kellum, R., Le, S., Meyers, B., Saunders, M., White, R., & Palmquist, M. (2005). Content analysis writing@csu. Colorado State University Department of English. Retrieved August 22, 2010 from http://writing.colostate.edu/guides/research/content

7. Cooper, H. M. (1983). Integrating research. Thousand Oaks, CA: Sage Publications.

8. Coppedge, M. (2002). Theory Building and Hypothesis Testing: Large- vs. Small-N Research on Democratization. Retrieved August 1, 2010 from www.nd.edu/~mcoppedg/crd/mpsacopp02.pdf

9. ICPSR. (2005). Content Analysis. Guide to Social Science Data Preparation and Archiving. Retrieved 28 October 2007 from http://www.icpsr.umich.edu/icpsrweb/content/deposit/guide/index.html http://www.icpsr.umich.edu/files/deposit/dataprep.pdf

10. Association for Computing Machinery (ACM): http://www.acm.org/

11. IEEE Computer Society: http://www.computer.org/portal/site/ieeecs/index.jsp

12. Project Management Institute (PMI): http://www.pmi.org/

13. Computer Crime and Intellectual Property Section U.S. DOJ
    http://www.justice.gov/criminal/cybercrime/

14. Cyber Criminals Most Wanted: The First Stop Cybercrime Awareness, Prevention & Safety Website http://www.ccmostwanted.com/

15. Department of Defense Cyber Strategy: http://www.defense.gov/News/Special-Reports/0415_Cyber-Strategy

16. Department of Defense: Cybercrime Center http://www.dc3.mil/

17. Federal Bureau of Investigation: Cyber Investigations http://www.fbi.gov/cyberinvest/cyberhome.htm

Creative Project Requirements

Creative project proposal requirements

Project plan: must include project sponsor (name and address of the specific department within the organization), manager within sponsor organization (name and contact information), the tasks, the timelines, the roles and responsibilities, the deliverables, and acceptance criteria.

Project summary: must include project sponsor (name and address of the specific department within the organization), manager within sponsor organization (name and contact information), the scope of work to be accomplished, the project objectives, the methodology to be used in the completion of the project, and the deliverables.

Weekly project progress report: must include
- The progress on the tasks from the project plan
- The work planned for the following week
- Issues to be resolved
- Hours spent for that week and cumulative since the start of this class

Final creative project requirements

Abstract: includes the following components: purpose of the research, methodology, findings, and conclusion. The body of the abstract is limited to 150-200 words.

Introduction: this section identifies your specific creative project and sets the general context for it.
- The problem
- Project goals and relevance to the discipline: provide a clear and lucid description of the creative project including the goal and intent of the project.
- Significance of the project
- Preliminary research
- Project schedule and deliverables: discuss the schedule and objectives for the work to be completed.
- Project plan acceptance criteria
- Final deliverable

- Sponsor

Literature review: the literature review focuses on how the creative project experience fits into the discipline. Specifically, it introduces the project and places it in a larger context that includes a discussion of how this experience helps the student meet the program objectives. It provides the current state of accumulated knowledge as it relates to the project.
- Describe how completing this project is consistent with the course of study.
- Articulate the objectives the student hopes to achieve through the completion of this project.
- Provide a short conclusion and transition to the next section.

Findings log/journal: this section is where the student's log/journal should be included and where the student describes how the overall project experience is situated within his/her discipline.
- Include the log/journal kept for the duration of the project.
- Discuss how the experiences mirror, contradict, or reinforce existing theoretical knowledge relative to the student's experience and discipline.
- Provide a summary of ways in which the experience helped the student meet the program objectives.
- Discuss the limitations of the student's experience and bias.

The project: this section is where the student includes his/her project, which must comport with discipline standards.

Reference list: this section should reference the works cited (direct quotes or paraphrases) in the text. This list must be formatted according to the school's prescribed style guide.

Other (TBD)

…

I. **Creative Project Introduction Rubric**

Major Areas to Review	Points Available	Points Awarded
Identify specific project question(s)	20	20
The creative project is expected to contain the following elements in the introduction: • **The Problem** • **Project Goals and Relevance to the Discipline:** Provide a clear and lucid description of the creative project including the goal and intent of the project. • **Significance of the project** • **Preliminary Research**	20	20
The creative project is expected to contain the following elements in the introduction: • **Project Schedule and Deliverables:** Discuss the schedule and objectives for the work to be completed. • **Project Plan Acceptance Criteria**	20	20
The creative project • **Final Deliverable** • **Sponsor**	20	20
Reference: • Incorporate all this sections references into one comprehensive list and should be in APA 6th Edition format. • If you had a citation in the body of your work you must have the appropriate reference in the reference section. • Also if you had a reference in your reference section, you must have a citation from that work somewhere in the body of your work. **The citations and references must match up.** • You will be strictly held to the APA standards. Proper citations, in format and use as well as proper references must be implemented.	10	10
Writing Format: Grammatical, spelling or punctuation—the writing is grammatically correct, clear and concise. The response is well formulated and easy to read and understand. Use correct terminology when needed. Turnitin.com will be used to assess originality report and supports attachments only—submit the paper	10	10

as an attachment with less than 15% originality (not including your references).
- Purdue Online Writing Lab: https://owl.english.purdue.edu/owl/resource/560/01/
- Writing Commons: http://writingcommons.org/process/format/formatting-styles/apa-formatting
- APUS APA Style Guide—see the link: /access/content/group/science-and-technology-common/ITCC/ITCC500/APA%20Resources/APUS%20APA%20Style%20Guide.pdf
- APUS Student APA Sixth Edition—see the link: /access/content/group/science-and-technology-common/ITCC/ITCC500/APA%20Resources/APUS%20Student%20APA%20Sixth%20Edition.pptx

Totals	**100**	**100**

II. Creative Project Research Design Rubric

Major Areas to Review	Points Available
Questions Driving the Creative Project: These are your research questions (what you plan to measure/examine). This section may also be in paragraph form. Research questions must be individual questions that each measures only one item (one question = one measurement). A couple of questions are expected in this section (typically 2 to 5).	20
The Research Design Section: • Progress on the tasks from the Project Plan • Task Issue/problem • Task Resources • Requirement to complete the project • Remaining work planned for upcoming weeks	40
Turnitin.com will be used to assess originality report and supports attachments only—submit the paper as an attachment with less than 10% originality. Searching for Literature Reviews: Before You Write, You Have to Find: http://www.youtube.com/watch?v=3Vw1-rljpuQ Reviewing a Sample Literature Review (Part I): http://www.youtube.com/watch?v=zswuIJ7-hB4	10
References: • Incorporated all this sections references into one comprehensive list and should be in APA 6th Edition format. • Also if you had a reference in your reference section, you must have a citation from that work somewhere in the body of your work. **The citations and references must match up.** • You will be strictly held to the APA standards. Proper citations, in format and use as well as proper references must be implemented.	10

• Provided **scholarly articles** to support selected topic in the reference area.	
Writing Format: APA • What is Plagiarism and How to Avoid It: http://www.youtube.com/watch?v=eIsLV9zOOe0ne • Purdue Online Writing Lab: https://owl.english.purdue.edu/owl/resource/560/01/ • Writing Commons: http://writingcommons.org/process/format/formatting-styles/apa-formatting • APA and MLA Citation Game Home Page: http://depts.washington.edu/trio/quest/citation/apa_mla_citation_game/	10
Grammatical, spelling or punctuation—the writing is grammatically correct, clear and concise. The response is well formulated and easy to read and understand. Correct terminology was used when needed.	10
Total	100