

Writing Across The Curriculum

Digital Forensics and Cyber Security

Part I: A description of what constitutes good writing in the Digital Forensics and Cyber Security Program (DFCS).

Good writing must be clear, focused, concise, grammatically correct, punctuated correctly and easy to read. Good writing reflects the appropriate voice and tense. The thesis statement must be clear and easy to identify. The paragraphs must be organized and focused. There must be a beginning, a body and a conclusion. The writer must also be able to address his/her audience.

Writing in the DFCS program takes two directions. DFCS students must develop skills in academic writing to complete their course of study and prepare for graduate school. In the DFCS profession, students must be able to write a variety of technical documents. Technical documentation can take many forms and is dependent upon the reader/audience, the purpose, and the writing situation. The reader/audience of a technical document seeks information for a specific purpose, and the primary goal is to design documentation that will serve readers' needs and help them understand and use the information efficiently. Generally, technical writing situations can involve both reader and purpose as well as other factors such as: the sponsoring organization's size, budget, values, corporate culture, deadlines, policies, competition, and priorities.

Students must learn to do research, read and comprehend research and be able to analyze and apply research to current activities that are presented in class. Students are expected to incorporate and accurately cite sources that are appropriate, relevant and persuasive. Any technical writing completed must have sources cited in the Modern Language Association (MLA) or American Psychological Association 6th Edition (APA) styles.

Basic to both types of writing is developing good grammar, punctuation, organization and formatting skills. Students must also be able to effectively communicate with their audience (regardless of role, age, or knowledge level) so that information can be obtained and used efficiently.

Part II: Writing Types

The Student's grade is broken down into various categories. There is a specific category called ***Business Communications*** for technical writing and all writing assignments fall into this category. All technical writing assignments are **30%** of the student's grade. Many of the writing assignments do not have a specific page length due to the type of assignment. As long as students are able to accomplish all writing requirements, the number of pages isn't forefront as part of grading criteria.

Students will be required to write in a variety of formats:

- Standard Operating Procedures (SOPs): Step-by-step instructions that communicate to personnel how to complete a task.
- Business Memo: Student must respond to an IT security scenario addressed to upper-level management and the human resources departments.
- Proposal Writing: Students must research a specific topic (as it relates to their specific course) and provide suggestions to respond to specific company or organizational scenarios and identified problems. Proposal Writing will include the following sections: Executive Summary, Data Section(s), and Conclusion.
- Bulletins: Students must research an information security topic and develop a very short/brief bulletin that gives a short summary of information or bullet points that educate a reader on relevant topics in Digital Forensics and Cyber Security.
- Pamphlets: Students research and write about an information security topic: they take the information that they have gathered and organize this information into a pamphlet that can be created and distributed.
- Feasibility Study: Students research and provide information to potential decision makers about the practicality and potential success of several alternative solutions to a problem.
- Test Plan: These are used to help organizations know what the IT consulting will be doing on a corporate network and the results of the activities completed.
- Progress / Status Report: A report that informs the audience/reader about a project that is not yet completed.
- Investigative Report: A type of report that analyzes data and seeks answers to why something happens, how it happens, or what would happen under certain conditions.
 - Digital Forensics: the investigative report should provide an unbiased statement of the items found within a piece of digital media as well as a summary of artifacts/evidence that was found. Should be easily comprehended regardless of the audience.
 - Cyber Security: The Investigative report is a technical document that provides a reader answers as to what happened and why particular problems occurred and solutions to technical issues such as: data breaches, network intrusions, denial of service, etc.

- Incident Report: A type of report that provides information about accidents, equipment breakdowns, or any disruptive occurrence.
- Policies: Organizational expectations and framework for how company employees, contractors and consultants will utilize information technology resources and consequences for non-compliance.
- ePortfolio: Students are required to complete an electronic portfolio that includes a resume and projects that are related to their intended career field. This is dynamic and changes as the students gains more experience, professional development, etc.

Part III: Courses and Writing Requirements

Instructor	Course	Course Name	Writing Criteria
Weinbrenner	JUS 2430	Introduction To Cybercrime	<i>Identity Theft Bulletin</i> : 2-3 pages 30% of grade <i>e-Portfolio</i> : Varies
Koncaba (F)	JUS 2450	Cybercrime Law and Ethics	<i>Intellectual Property Bulletin, Business Memos</i> : 5 pages, 30% of grade <i>IT Policy</i> : 2-3 Pages (30% of grade)
Weinbrenner (S)	JUS 2450	Cybercrime Law and Ethics	<i>Current Ethical Issues Research Paper</i> : (5-10) pages, 30% of grade
Koncaba	JUS 2470	Operating Systems and Programming Concepts	<i>Standard Operating Procedures</i> : Varies (~5-10 pages); 30% of grade
Weinbrenner	JUS 2500	Digital Crime Investigation	<i>Investigative Report</i> : Varies (5-15 pages): 30% of grade <i>Research Paper</i> : (5-10 pages) 30% of grade <i>e-Portfolio</i> : Varies
Koncaba	JUS 2510	Networking Concepts	<i>Network Proposal</i> : Varies (15-20 pages); 30% of grade
Koncaba	JUS 2550	Hardening The Enterprise Network	<i>Network Proposal</i> : Varies (15-20 pages); 30% of grade
Weinbrenner	JUS 2650	Cyber Threats and Counterintelligence	<i>Pamphlet</i> : 2-4 panels (~2 typed pages); 30% of grade
Koncaba	JUS 3400	Penetration Testing and Vulnerability Scanning	<i>Test Plan</i> : Varies 5-15 pages (30% of grade) 30% of grade
Weinbrenner	JUS 3600	Data Recovery	<i>SOP</i> : Varies but generally 10+ pages (dependent upon screenshots)

			<i>Investigative Report: Varies (10+ pages) 30% of grade</i>
Koncaba	JUS 4050	Network Forensics and Incident Response	<i>Investigative Report: Varies (10-15 pages)</i> <i>Incident Report: 3-5 pages (30% of grade) 30% of grade</i>
Koncaba	JUS 4450	Social Media and Cloud Security	<i>Feasibility Study: 10-15 pages (30% of grade) 30% of grade</i>
Weinbrenner	JUS 4650	Mobile Device Forensics	<i>Standard Operating Procedures: Varies (10+ pages) (30% of grade)</i> <i>Final Investigative Report: (10+ pages)</i>

Part III: Include any rubrics used in the courses listed above.

Rubrics are based upon the assignment and topic given. The rubric depicted below is used for writing papers in the Digital Forensics and Cyber Security program. This rubric is used across multiple classes and is modified based on the type of assignment given. This rubric was created by the School of Extended Education at Saint Mary's College in the Melanie Booth, Learning Resource Program.

	Masterful	Skilled	Able	Developing	Novice	(Way Off)
Focus, Purpose, Thesis (Controlling Idea)	Engaging and full development of a clear thesis as appropriate to assignment purpose	Competent and well developed thesis; thesis represents sound and adequate understanding of the assigned topic.	Most intelligible ideas; thesis is weak, unclear, too broad, or only indirectly supported	Mostly simplistic and unfocused ideas; little or no sense of purpose or control of thesis.	Ideas are extremely simplistic, showing signs of confusion, misunderstanding of the prompt; thesis is essentially missing or not discernable.	Shows complete confusion about the topic or inability to grasp it; thus conspicuous absence of thesis and lack of purpose.
Ideas, Support & Development (Evidence)	Consistent evidence with originality and depth of ideas; ideas work together as a unified whole; main points are sufficiently supported (with evidence); support is valid and specific.	Ideas supported sufficiently; support is sound, valid and logical.	Main points and ideas are only indirectly supported; support isn't sufficient or specific, but is loosely relevant to main points.	Insufficient, non-specific, and/or irrelevant support.	Lack of support for main points; frequent and illogical generalizations without support.	Clear absence of support for main points.
Structure, Organization	Organization is sequential and appropriate to assignment; paragraphs are well developed and appropriately divided	Competent organization, without sophistication. Competent paragraph structure; lacking in effective transitions.	Limited attempts to organize around a thesis; paragraphs are mostly stand-alones with weak or non-evident transitions.	Organization, while attempted, was unsuccessful. Paragraphs were simple, disconnected and formulaic. No evident transitions or planned sequence.	Organization, if evident at all is confusing and disjointed; paragraph structure is weak; transitions are missing, inappropriate and/or illogical.	Paragraph structure does not exist; or is a single rambling paragraph or a series of isolated paragraphs.

Audience, Tone, and Point-Of-View	Clear discernment of distinctive audience; tone and point-of-view appropriate to the assignment.	Effective and accurate awareness of general audience; tone and point-of-view satisfactory.	Little or inconsistent sense of audience related to assignment purpose; tone and point-of-view not refined or consistent.	Shows almost no awareness of a particular audience; reveals no grasp of appropriate tone and/or point-of-view for given assignment.	Lacks awareness of a particular appropriate audience for assignment; tone and point-of-view somewhat inappropriate or very inconsistent.	No evident awareness of audience as appropriate to assignments; tone completely inappropriate to assignment.
Sentence Structure (Grammar)	Each sentence structured effectively, powerfully; rich, well-chosen variety of sentence styles and length.	Effective and varied sentences; errors(if any) due to the lack of careful proofreading; syntax errors (if any) reflect uses as colloquialisms.	Formulaic or tedious sentence patterns; shows some errors in sentence construction; some non-standard syntax usage.	Sentences show errors of structure; little or no variety; no grasp of sentence flow.	Simple sentences used excessively, almost exclusively; frequent errors of sentence structure.	Contains multiple and serious errors of sentence structure; i.e., fragments, run-ons. Unable to write simple sentences.
Mechanics and Presentation	Virtually free of punctuation, spelling, capitalization errors; appropriate format and presentation for assignment.	Contains only occasional punctuation, spelling, and/or capitalization errors. Few formatting errors. Most errors likely careless.	Contains several (mostly common) punctuation, spelling, and/or capitalization errors. Several errors in formatting or formatting is inconsistent.	Contains many errors of punctuation, spelling, and/or capitalization. Errors interfere with meaning in places. Formatting incorrect in most places.	Contains many and serious errors of punctuation, spelling, and/or capitalization; errors severely interfere with meaning. Formatting weak.	Frequent errors in spelling and capitalization; intrusive and/or inaccurate punctuation, communication is hindered. No formatting as appropriate to assignment.
Vocabulary and Usage	Exceptional vocabulary range, accuracy, and correct and effective word usage.	Good vocabulary range and accuracy of usage	Ordinary vocabulary range, mostly accurate; some vernacular terms.	Errors of diction, and usage, while evident, do not interfere with readability.	Extremely limited vocabulary; choices lack grasp of diction; usage is inaccurate.	Diction and syntax make communication meaningless or very confusing at best.
	Masterful	Skilled	Able	Developing	Novice	(Way Off)