

FORENSIC SCIENCE RESEARCH PAPER RUBRIC

Student Name _____ Evaluator: _____
 Course FSC 630 Term Summer Date _____

ABSTRACT					
5	4	3	2	1	Score
Clearly summarizes the problem addressed; the approach and major findings and conclusions. Between 400-700 words. Includes future directions	Clearly summarizes the problem addressed; the approach and major findings and conclusions. Includes future directions.	Clearly summarizes the problem addressed; the approach and major findings and conclusions. Within word count restrictions. Does not include future directions	Major points within the summary sections are missing such as within the problem addressed; the approach and major findings and conclusions. May not meet word count requirement	Abstract is missing	
TITLE					
5	4	3	2	1	Score
Concise descriptive, logical title with no style, grammatical, or spelling errors	Wordy, but logical title with no style, grammatical, or spelling errors	Wordy or non-descriptive title with one style, grammatical or spelling error	Misleading or illogical title with one style, grammatical or spelling error	Title misleads or is illogical with a couple misspellings, typos or style errors	
AUTHORSHIP					
5	4	3	2	1	Score
Primary investigators are listed accurately by full name, title and agency	Primary investigator (student), faculty topic advisor, and agency supervisor are listed appropriately	Primary investigator and one, but not the other, investigator is listed	Only the primary investigator (student) is listed.		
INTRODUCTION: LITERATURE REVIEW					
5	4	3	2	1	Score
Articles reviewed are relevant to the problem being investigated; coverage of previous empirical and theoretical studies is thorough; issues are clearly explained; issues related to the problem are discussed in a logical progression; the number of articles cited is fully sufficient for the task. Full citations for any reference cited in the report using the Scientific Style and Format or other assigned style manual. Minimum of 3 references are within the last 5 years and from peer-reviewed	Articles reviewed are relevant to the problem; coverage of previous empirical and theoretical studies may not be complete; some confusion over concepts or issues may be present; issues related to the problem may not be presented in a logical order, the number of articles is adequate for the task. Full citations using the SSF or other assigned style manual. Minimum of 3 references are within the last 5 years and from peer-reviewed journals.	Some articles reviewed are irrelevant to the problem, or relevant articles from the literature are not reviewed; important information about articles being reviewed may be left out, and/or irrelevant information may be included; confusion about some concepts or issues being discussed; issues related to the problem are not organized in a way which effectively supports the argument, are arranged chronologically, or are arranged article by article; the number of	Articles reviewed are not directly related to the problem, though they may be in the same general conceptual area; important information from articles is ignored, and irrelevant information is included; lack of understanding of concepts or issues being discussed; presentation of previous research and theory not organized in a logical manner; inadequate number of articles reviewed. Minimum of 3	Research and theory related to current problem is not reviewed or discussed.	

journals		articles is fewer than necessary for the task. Minimum of 3 references are within the last 5 years and from peer-reviewed journals.	references are within the last 5 years and from peer-reviewed journals		
INTRODUCTION: RESEARCH QUESTION					
5	4	3	2	1	Score
Clearly defined variables: independent, dependent, (or if a non-experimental study, variables to be examined); specific statement as to how variables are to be manipulated and/or measured. "Who cares" statement: why the study was done (relevance); Brief summary of relevant background facts with references; Background clearly leads to the problem or question being addressed; clearly stated hypothesis with predictions.	Clearly defined variables: independent, dependent, (or if a non-experimental study, variables to be examined); general statement as to how variables are to be manipulated and/or measured. Stated in the form of a question. "Who cares" statement is present. Summary of relevant facts with references is present and leads to the problem or question being addressed.	Clearly defined variables: independent, dependent, (or if a non-experimental study, variables to be examined); no statement as to how variables are to be manipulated and/or measured and/or not stated in the form of a question.	Clearly defined variables: independent, dependent, (or if a non-experimental study, variables to be examined); no statement as to how variables are to be manipulated and/or measured and not stated in the form of a question.	Variables are not clearly defined; no statement as to how variables are to be manipulated and/or measured and not stated in the form of a question.	
RESEARCH DESIGN					
5	4	3	2	1	Score
Clearly defined variables: independent (levels Specified), dependent (specifies how this variable will be measured), or if a non-experimental study, variables to be examined are clearly explained in terms of levels or measurement.	Variables identified, but one of the following missing: independent (levels specified), dependent (specifies how this variable will be measured), or if a non-experimental study, variables to be examined are clearly explained in terms of levels or measurement	Variables identified, but two of the following missing: Independent (levels specified), dependent (specifies how this variable will be measured), or if a non-experimental study, variables to be examined are clearly explained in terms of levels or measurement.	One variable identified.	No variables clearly identified and/or statement of research design missing	
MATERIALS & METHODS					
5	4	3	2	1	Score
Contains effective, quantifiable, concisely organized information that allows the experiment (or study) to be replicated; is written so that all information inherent to the document can	As in 5, but contains unnecessary or superfluous information or wordy descriptions within the section. Equipment and supplies list are incomplete; description of actual experimental methods	Presents a study that is definitely replicable; all information in document may be related to this section, but fails to identify some sources of data of present sequential information in a	Presents a study that is marginally replicable; parts of the basic design must be inferred by the reader; procedures not quantitatively described.	Describes the study so poorly or in such a nonscientific way that it cannot be replicated.	

be related back to this section; identifies sources of all data to be collected; identifies sequential information in an appropriate chronology; contains through, but not redundant, descriptions of procedures. Equipment and supplies are listed; procedure could be replicated by someone else with similar skills in the art; report of actual experimental methods are accurate.	accurate.	disorganized, difficult way; may contain unnecessary or superfluous information. Equipment and supplies list absent; procedure could be replicated as described; description of actual experimental methods accurate.			
REFERENCES					
5	4	3	2	1	Score
List of reference citations is complete; all works cited in the body of the paper are listed, but only those works; references are listed in alphabetical order; minimum of 3 are from peer-reviewed, scientific journals	As in 5, but references are listed that were not cited in the paper;	As in 5, but less than 3 peer-reviewed, scientific journals were cited.	Student has failed to include all references cited in body of the paper; information in the references is incorrect or incomplete.	Reference list is wholly inadequate, incomplete, or missing.	
REFERENCE FORMAT					
5	4	3	2	1	Score
Student has followed all conventions for proper format of a research report as described in the peer-reviewed Forensic Science journal approved by their Faculty Advisor.	Student has made minor deviations in SSF format: e.g., incorrect form of page headers, improper section headings, or incorrect citation format of references.	As in 4, but more serious and consistent errors in format: e.g., subsections are omitted, absence of page headers or numbers, non-SSF style citation format, improper tense or voice for the paper, figures/tables inserted in incorrect location of paper, incorrect information included on title page or critical information omitted, incorrect references to figures and/or tables.	Major errors in SSF format: e.g., major sections of paper omitted, absence of title page, information presented in incorrect sections, critical information omitted, figures or tables left out.	Paper does not follow format.	
WRITING QUALITY					
5	4	3	2	1	Score
Student has written	As in 5, but with	The paper exhibits	The student has	The paper is	

elegantly and cogently, using proper grammar, syntax, punctuation, spelling; the paper has a neat appearance and is free of typographical errors; wording is appropriate to the context; paragraphs are well constructed; paper exhibits a logical "flow" from section to section; student used proper voice for the paper.	occasional uncorrected typographical errors, or a very few minor errors in spelling, grammar, syntax, or punctuation; however, errors do not detract from the overall ability to convey meaning; the paper is not as elegant as in 5	numerous typographical errors and repeated errors in basic elements of writing; the student has not expressed ideas with clarity and precision; transitions between paragraphs are awkward; wording of sentences tends to be simplistic in style and content.	displayed serious and consistent problems in basic writing skill; the ability to express ideas is compromised by the poor writing quality.	seriously deficient in quality of writing.	
RESULTS					
5	4	3	2	1	Score
Presents major findings of the study; Presents data and summarizes observations using graphs and tables; Any trends noticed are clearly indicated; Data should not be interpreted in this section.	Data presented clearly and with appropriate graph, table or illustration; trends are identified.	Data presented in an unclear fashion; format for data may not be the best.	Results section missing or plagiarized.		
DISCUSSION & CONCLUSIONS					
5	4	3	2	1	Score
How do the results relate to the hypothesis or goals of the study? What new questions does the study raise? What new hypotheses might now be formulated? What are the future directions of the work?	Results are clearly tied back to original hypothesis. New questions/hypotheses presented and future work is presented.	Missing either linkage to original hypothesis/question or new questions/future work not presented.	Results not tied back to original hypothesis or question investigated.	Future questions/directions not discussed. Discussion section missing or plagiarized.	
Scientific Accuracy					
5	4	3	2	1	Score
Scientific concepts are presented clearly and explained accurately.	Jargon clearly defined and defined correctly; background correctly describes previous work; no scientific gaffes or inaccuracies.	Some problems with interpreting primary literature cited in report; science mostly correct and accurate.	Inaccuracies in interpreting previous work; scientific concepts inaccurate; materials and methods inaccurate.		
INTELLECTUAL PROPERTY					
5	4	3	2	1	Score
Trademarks and registrations are consistently noted. Unique reagents and equipment are	Trademarks and registrations are mostly noted. Most unique reagents and equipment are identified by	Trademarks and registrations are inconsistently noted. Unique reagents and equipment are	Trademarks and registrations are minimally noted. Unique reagents and equipment are	Trademarks and registrations are not noted. Unique reagents and equipment are not	

identified by manufacturer (Name, City, State) upon initial citation.	manufacturer (Name, City, State) upon initial citation.	inconsistently identified by manufacturer (Name, City, State) upon initial citation.	minimally identified by manufacturer (Name, City, State) upon initial citation.	identified by manufacturer (Name, City, State) upon initial citation.	
ACKNOWLEDGEMENTS					
5	4	3	2	1	Score
Acknowledgements are present				Acknowledgements are absent.	
LENGTH					
5	4	3	2	1	Score
Narrative is a minimum of 10 pages, double-spaced. Font is 12. Margins are 1 inch. Pages are numbered.				Narrative is less than 10 pages, double-spaced. Font is more or less than 12. Pages are not numbered.	

SCORE SHEET

Category	Weight	Reviewer Rating	Score [weight x rating = Student Score]	Total Possible
Abstract	4			20
Title	1			5
Authorship	1			5
Introduction: Literature Review	4			20
Introduction: Research Question	2			10
Research Design	4			20
Materials & Methods	4			20
References	1			5
Scientific Style & Format SSF	1			5
Writing Quality	4			20
Results	4			20
Discussion & Conclusions	4			20
Scientific Accuracy	4			20
Intellectual Property	1			5
Acknowledgements	1			5
Length	4			20

Total Points Possible= 220

	Letter Grade
198-220	A
176-197	B
154-175	C
132-153	D
131 or below	F

Rubric Adapted from:

Herdegen, R. T. III (2004) in P. L. Maki, *Assessing for learning*. Sterling, VA: Stylus Publishing, LLC.

Courtesy of Dr. Mary Beth Reynolds, Marshall University.

Promega Corporation, 2800 Woods Hollow Road, Madison, WI. *Grading Rubric for Reporting Experimental Results*.Huth, Edward J. *Scientific Style and Format: The CBE Manual for Authors, Editors, and Publishers*. 6th Ed. Press Syndicate of the University of Cambridge Publishers. ISBN 0-521-47154-0.