

Written Project

Assignment: Write a paper on a topic in mathematics or statistics of your choosing approved by the instructor (that's me!). The mathematical content of the project is to reflect the content of the courses in the undergraduate major. The paper is to be written at a level understandable by your fellow seminar participants. This paper can be used to satisfy the Fulbright College Writing Requirement. You will give a 10 minute presentation on this paper and create a poster highlighting the essential aspects of your project.

Details: The paper must contain substantial mathematics or statistics (i.e. cannot solely be a biography of a mathematician), a bibliography of references (using a style appropriate to the discipline), be organized by sections, and be 10–15 pages long (not including figures, tables and references) with 1.5 line spacing and 12 point type. In order to appropriately include mathematics in the paper, \LaTeX is strongly encouraged. There are free web-based applications for using \LaTeX such as Overleaf.com and so there is no need to install software on your personal machine. Templates will be provided and we will introduce this tool during a class meeting. The attached rubric provides complete details regarding grading of the written portion of the project. Rubrics for the presentation and poster will be made available on a later date.

Topic Selection: Choose a topic that is unique and interests you but also one that is accessible to you given your current mathematical background.

Resources for help in choosing a topic:

- mathematics section in Mullins Library (QA) or mathematics reading library in SCEN 349
- MAA Periodicals: Math Horizons, Mathematics Magazine, The American Mathematical Monthly, The College Mathematics Journal (all available online: <https://uark.libguides.com/MASC>)
- Stephanie Pierce – Physics and Mathematics Librarian, PHYS 221B, email: sjpierc@uark.edu
- instructor or text book of a previous mathematics course you have taken
- me!

Focus your research on a particular aspect of your topic to provide adequate depth.

Important Dates:

- Thursday, January 27: Title and three sentence description of project
- Tuesday, February 8: Outline of project
- Thursday, February 17: 3 minute project presentations
- February 28 - March 4: One-on-one meeting with Prof. Clay
- Thursday, March 17: First draft of project
- Tuesday, April 5 & Thursday, April 7: Peer Review Meetings
- **Tuesday, April 12: Final version of project**
- Tuesday, April 12 - Thursday, April 21: 10 minute project presentations
- Thursday, May 5: Poster Session in SCEN

MATH 4933 – Final Project Rubric

CATEGORY	Excellent	Good	Acceptable	Unacceptable	SCORE
Introduction	Engaging introduction to topic and key terms. Clearly outlines subtopics. Specific thesis statement.	Conveys topic and key terms. Clearly outlines subtopics. General thesis statement.	Conveys topic, but not key terms. Describes subtopics. General thesis statement.	Does not adequately convey topic. Does not describe subtopics. Lacks adequate thesis statement.	10 points
Organization	Well-planned and well-thought out. Includes transitions and conclusion.	Good overall organization, includes the main organizational tools.	There is a sense of organization, although some of the organizational tools are used weakly or missing.	No sense of organization.	10 points
Voice	The purpose of writing is very clear, and there is strong evidence of attention to audience. The author's knowledge on the topic is evident.	The purpose of writing is somewhat clear, and there is some evidence of attention to audience. The author's knowledge on the topic is evident.	The purpose of writing is somewhat clear, and there is evidence of attention to audience. The author's knowledge on the topic is limited.	The purpose of writing is unclear.	20 points
Support	Several strong peer-reviewed or reputable sources used.	Sources well selected, with most peer-reviewed or from reputable publishers.	Sources generally acceptable, but some are not peer-reviewed nor from reputable sources.	Few sources supporting thesis. Sources insignificant or unsubstantiated.	10 points
Mathematical Depth	Paper shows evidence of advanced mathematical maturity.	Paper shows evidence of expected mathematical maturity.	Paper mentions some advanced ideas but does not investigate them.	Mathematical discourse in paper is elementary.	20 points
Mathematical Accuracy	No mathematical errors.	Few mathematical errors, none that detract from the paper.	Few mathematical errors detract from the paper.	Mathematical errors substantially detract from the paper.	10 points
Grammar & Mechanics	The paper is free of grammatical, spelling and punctuation errors.	Grammatical, spelling and punctuation errors are rare and do not detract from the paper.	Few grammatical, spelling and punctuation errors detract from the paper.	Grammatical, spelling and punctuation errors substantially detract from the paper.	10 points
Citations & References	All references and citations are correctly written and present.	One reference or citation missing or incorrectly written.	Two references or citations missing or incorrectly written.	Reference and citation errors detract significantly from paper.	10 points

Total Points:

/100