Paper One - A History of Written Mathematics

Dates:  
August 29  Visit to McDaniel Archives  
August 31  Topic approved  
September 7  Annotated Bibliography  
September 14  First Draft  
September 28  Final Draft

Description

This paper is to be a “historical rhetorical analysis” of mathematical textbook writing in the last 150 years through the lens of what topics have been taught at McDaniel College since its founding. This means that you will pick a topic that has been consistently taught at McDaniel (a fact that you will be asked to document). Then you will find representative textbooks at several time periods for your topic to compare. Your comparison should be attempting to say something meaningful about how mathematics and written for and presented to the student. Finally I want you to give an evidence backed recommendation for what we, as your professors, should be looking for in the writing of a text when choosing one for a course.

Parts of the Assignment

There are course basic parts of this paper assignment. Each one is meant to aid you in progressing to the next.

- Visit to the Archives and choosing a topic - Topics are not the same as course titles, for example Calculus is a course title but Mean Value Theorem is a reasonable choice for a topic. This means you do not have to read an entire textbook but can meaningfully compare across time.

- Annotated bibliography - The prime goal of this piece is to ensure that you have a sufficient amount of materials to base your paper on and information to form proper bibliographic entries.

- First draft - I expect a complete draft of paper. It need not be perfect. I am looking to be able to see your argument and your sources and sharpen both. Focus on getting what you want say on the page. This draft will be graded on the amazing/complete/incomplete/non-existent scale.

- Final draft - This should be amazing. Cleanly typeset, properly formatted, correctly constructed bibliography, and persuasive. Of the two pieces, historical analysis and recommendations, you should make sure your historical piece is dominant in your paper. The recommendation carries no weight without that historical analysis.

Annotated Bibliography  
Your bibliography should have an entry for every source you are using. For each of those sources you should include a full bibliographic citation and two or three sentences describing what you intend to use that source for. This is not a binding contract so if those uses change or you find more sources that is fine.

The point of this part of the assignment is to ensure that you have enough sources that reflect a properly broad swath of the time period in question and that do in fact contain the topic you are interested in.

You do have to document some plausible cause to believe that your “representative” texts are in fact representative. Whether this is through book reviews or advertisements in popular mathematical magazines of the time or through other histories of mathematical writing that is fine.

The citation style you use should be used properly. I, out of habit born from typing in \LaTeX use the American Mathematical Society’s style.¹

Expectations and Grading

I expect a well written piece of English literature as the final product. While I would prefer a paper written in \LaTeX any other word processing software is acceptable.

The topic generation is graded on based on whether you were on-time/late/absent. This is 10% of the assignment grade.

The bibliography is graded on based primarily on completeness of entries, appropriateness of entries, sufficiency of entries, and possible deductions for poor formatting. This is 20% of the assignment grade.

The first draft will be graded based on amazing/complete/incomplete/non-existent (A/B/C-/F) scale. This is 20% of the assignment grade.

The final draft will be graded according to a rubric I hand out in class. This is the remaining 55% of the assignment grade.

The length requirement of the paper is that it is complete and thorough. I can’t imagine this will be any less than 5 pages single spaced.

¹http://www.ams.org/publications/authors/AMS-StyleGuide-online.pdf Chapter 10