Special Topics in Advanced Math: History of Mathematics

Math 395 Fall 2023 © 2023 Ron Buckmire Fowler 310 TR 1:30pm - 2:55pm http://sites.oxy.edu/ron/math/395/23/

COURSE PROJECT [300 points]

PROMPT AVAILABLE: Tuesday September 19th PROJECT PROPOSAL DUE: Thursday October 5th DRAFT PAPER DUE: Tuesday November 21st, 5pm FINAL PAPER DUE: Tuesday December 12th, 5pm

ORAL PRESENTATION: Thursday November 30th

Objective: synthesize mathematical content and historical context in a history of mathematics paper that contains non-trivial mathematics and interesting historical detail.

PROJECT PROPOSAL [50 points]

- Length. No more than 1 page long
- **Title.** Include a title for your proposed paper
- **Topic.** Describe the topic for your course project. Describe the mathematical concept you will be investigating. Your paper should include both history and mathematics. You should include basic historical information (birth/death dates) about the mathematical concept and biographical details about a person associated with that mathematical idea.)
- **Annotated bibliography.** Include *at least* three (3) references/citations with a sentence on each explaining the reason for how you will be using this source.

ORAL PRESENTATION [100 points]

- Length. Between 8--10 minutes.
- **Slides.** Required.
- **Medium**. Take advantage of the oral and synchronous nature of the presentation to provide insight into the mathematical concept (and its history)
- **Content.** Provide an oral presentation version of the highlights of your Course Project paper.

FIRST DRAFT [50 points]

- Length. At least six (6) pages (1500 words) long
- **Format.** Typed, double-spaced, 12-point font with 1-inch margins.
- **Content.** The paper should contain:
 - Clearly articulated thesis or focus statement that is in bold font and summarizes the primary argument(s) of the paper.
 - A clear description of a mathematical concept (with symbols, equations and/or figures) using modern notation
 - The name of a particular 300-level class which the mathematical concept is connected to
 - Biographical information (e.g. (birth and death dates and brief life summary) about at least one historical figure associated with the mathematical concept
 - The reason for selection of the historical figure and the mathematical concept
 - Place the mathematical concept in historical context and compare the concept's origins to its modern understanding and representation
- **References.** Include *at least* five (5) references/citations.

FINAL DRAFT [100 points]

- Length. Between eight to ten (8-10) pages (2000-2500 words) long
- Format. Typed, double-spaced, 12-point font with 1-inch margins.
- Content. The paper should contain:
 - Clearly articulated thesis or focus statement that is in bold font and summarizes the primary argument(s) of the paper.
 - A clear description of a mathematical concept (with symbols, equations and/or figures) using modern notation
 - The name of a particular 300-level class which the mathematical concept is connected to
 - Biographical information about a historical figure (birth and death dates)
 - The reason for selection of the historical figure and the mathematical concept
 - Place the mathematical concept in historical context and compare the concept's origins to its modern understanding and representation
- **Polish.** The final draft of the paper should
 - be carefully proofread to ensure clear communication of ideas and to correct obvious grammatical or formatting errors
 - respond to comments and suggestions provided in response to the first draft.
- **References.** Include *at least* five (5) references/citations.