

University of Bahrain
Bahrain Teachers College
TC2MA324: History of Mathematics
Dr. Abdulla Eid
Spring 2015



Final Project

One of the requirements of this course is a research project. The research project is an independent study of one of the topics that are related to this course. The final outcome should be a report that shows what you (and your group) have learned independently.

Objective: To read, understand, and summarize a topic of interest independently. This is related to CILOs 4–6 of this course.

Requirements:

1. Choose a topic from the list below (or consult your instructor if you have a different choice).
2. Consult with your instructor for suitable references (only textbooks and lecture notes are acceptable). Discuss the scope of material that is needed to be covered.
3. Write a report of what you have learned. Remember that the aim of this project is to assess your ability to read, understand, and write about a topic in Mathematics independently. Thus, your report should show clearly what you have understood (please avoid copy/paste).

Format: The report should be in a format that is similar to the lecture notes in a college level course in Mathematics. Imagine (while writing the report) that your colleagues will read it and will be tested on it. Thus, try to include all necessary prior knowledge, definitions, examples, theorems, etc.

Grading: You report will be graded based on the presentation of the material in the report (10%) and on your understanding of the topic (10%). You will need to submit the report as well as a group presentation or individual assessment or both!

Important Dates:

- Weekly meeting with the instructor: May 12 – June 7, 2015.
- Group Presentation: Sunday May 31, 2015.
- First Draft: Monday June 1, 2015.
- Individual Assessment (Oral Exam): June 2 – June 3, 2015.
- Final Version: Monday June 8, 2015.

Topics: These are some suggested topics, if you would like to work on different topic, please consult that with your instructor.

1. Fair Division.
2. Voting System and Power index.
3. Proof of the properties of the voting systems.
4. Proof of the May's and arrow's impossibility theorem.
5. Escalation and Auction.
6. Fractals and Dimensions.
7. RSA.
8. History of Cryptography.
9. Islamic Mathematics 1.
10. Islamic Mathematics 2.
11. Egyptian and Babylonian Mathematics in modern language.