

Research Opportunities for Commuter Students

Fall 2004

Welcome! We hope you are excited and ready to begin doing research in the mathematical sciences. Although this is not a standard class, we do have structured assignments and due dates to assist you in the research process. The following are a list of graded events during the fall semester, followed by explanations and content criteria.

Event	Due Date	Percent of Grade
Presentations	End of every month	20%
Midterm Report	End of October	20%
Final Report	Finals Week	30%
Final Poster Presentation	Last week of classes	20%
Homework	TBA	10%

Homework You will rapidly learn the background required for your research problem by completing homework assignments. These homework assignments will be used to determine which project would be best suited for you. You may work in groups on the homework.

Midterm and Final Report The Midterm and Final Report will contain three sections.

- (1) **Introduction** The Introduction will describe the problem you are working on, the history of the problem and known results from the literature.
- (2) **Computations** The Computation section will contain the type of numerical experiments you ran to investigate the problem. In this section, you will need to describe how many experiments you ran, what type of software you used and what the purpose of the experiments were.
- (3) **Results** The final section will contain any conjectures or developed theorems with proofs resulting from your experiments.

The Final Report will be an extension of the Midterm Report. You will be graded on your writing, your explanations and mathematical content. All Final reports will be bound into one binder and made available to future students and faculty.

Presentations Presentations will be graded on explanation of problems and investigations, delivery of the presentation and written board work. Each presentation will begin with an explanation of your problem followed by your current investigations. The presentation should end with your obtained conclusions. You will receive comments from all attending professors along with suggestions to further your research.

Final Poster Each poster will be created on a self-standing tri-fold table top poster board which are 48" wide, 36" tall. The poster board can be obtained at any office supply store. The center of the board should contain the title of your work followed by the main results of your research. The left side flap of the poster will contain a statement of your problem along with background information and history. The

right flap of the board should contain well thought out examples. The following websites provide tips on developing a good poster presentation.

- <http://lorien.ncl.ac.uk/ming/Dept/Tips/present/posters.htm> (Under Design)
- <http://www.psichi.org/conventions/tips.asp>
- http://www.kumc.edu/SAH/OTEd/jradel/Poster_Presentations/PstrStart.html

You will be graded by all the professors involved in ROCS along with several outside professors in the department. Your poster presentation will be graded on three criteria; poster style, mathematical content and answers to questions.