

# CPSC 669 / PMAT 669 — Research Project

The research project will consist of three parts: project proposal, written report, and an in-class presentation on the research topic. You are free to select a topic. Anything related to cryptography is suitable provided that the level is appropriate to a graduate course. Original research is not required; a detailed description or survey of your topic will in general suffice. Feel free to consult with the instructor for feedback on suitability or for ideas.

## **Project Proposal.**

**Marks:** 10%

Your proposal should be a fairly detailed outline of the report you will produce. It must include the following:

- description and motivation of the research topic,
- an outline of the report (including appropriate citations),
- a *well-researched* bibliography containing reputable sources (this does *not* include Wikipedia and similar on-line resources),

The main body (not including the bibliography) must not exceed two pages in length (single-spaced, 12pt font).

Proposals will be graded on:

- motivation (what is the topic and why is it interesting),
- quality of the outline (clear, states precisely what your report will cover, etc.),
- quality of the bibliography (important references included, peer-reviewed sources used),
- choice of topic (relevance, innovation, level of difficulty).

The proposals will be graded in time for my comments and suggestions to be incorporated into your reports.

## **Report.**

**Marks:** 40%

You are to write a detailed report on the topic outlined in your proposal. Your report must be typeset and be no more than fifteen pages (not including the bibliography) in length. In addition, it must be single-spaced, use 12pt font, and use a single-column format.

Part of the grade on your report will be based on overall presentation and quality of writing, so use a spell checker. Get someone else (perhaps swap with other students in the course) to read your report and comment on the grammar and readability before handing it in.

As always, plagiarism is a concern with written reports. Make sure to use your own words — do not copy anything directly into your paper. Using a few small quotes with proper attribution is fine, but copying large quantities of the documents is not. Cite all sources you've read on the topic, not only those that you directly quote.

Your report will be graded using the following criteria:

- Quality of writing, readability
- Organization
- Motivation (what is the topic and why is it interesting)
- Content (all relevant aspects covered)
- Technical accuracy
- Depth and level of difficulty
- Conclusions (assessment of open problems and state-of-the-art)

### **Presentation.**

**Marks:** 10%

Student presentations will be scheduled during the last two or three weeks of the course. They will be at most 50 min long, possibly less depending on the number of students in the course. The time limit, once decided is firm: presentation that go past the limit will be cut off.

Your grade on the presentation will be assessed based on the following criteria:

- motivation (what is the topic and why it's interesting and important)
- contents (the most important and relevant aspects are covered)
- technical mastery (contents are correct, presenter is confident with the material)
- conclusions (summary of results, open problems)