

**CMPSC 580**  
**Topics and Research Methods in Computer Science**  
**Spring 2015**

**Assignment 3: In-Class Exercise**  
**20 January 2015**  
**Writing Good Proposals**

## Background

The most important document you will produce in the Junior Seminar is a proposal for your senior project. Today we take a first look at proposals previously written by Allegheny College students.

A good proposal should include:

- compelling motivation for the proposed project through examples, published data, demonstrated need, or other evidence
- proof that the proposer understands the problem and is thoroughly acquainted with the scholarly literature surrounding it
- an approach to carrying out the project that is well-considered, professional, and described in sufficient detail that the reader is able to assess its feasibility
- a realistic timetable for completing the major components of the project

Other sections may be included on threats to validity (what objections might there be to your method of approach and how would you address them?), specialized computational needs (for example, do you need to reserve time on some of the Department lab machines?), budget (does your project require the purchase of special software or hardware?), a back-up plan (in case your project can not be completed as proposed), or other relevant components of a proposal.

## Evaluate Some Proposals

Work in groups of three. Each group will repeatedly review a set of three proposals that are set up at separate stations around the room. These are actual proposals submitted by Allegheny College Computer Science majors; names and dates have been blacked out.

The proposals represent all stages of the proposal-writing process, from preliminary proposals produced in CMPSC 580, through initial drafts of proposals submitted in CMPSC 600, to final proposals accepted by the faculty after a formal defense.

Evaluate each of the proposals on each of the above criteria. Note any aspects of the proposals that need improvement. Note any aspects that are particularly well-done. At the end of class, the groups will be asked to report back with answers to the following questions:

1. For each proposal 1 through 6, does the author provide sufficient background and motivation for the project?

2. For each proposal, does the author demonstrate proficiency in the area of the proposed project? How is this achieved?
3. For each proposal, are there figures, tables, graphs, or other visual aids to help clarify the concepts being discussed? Do the figures appear to be from outside sources? If so, are the sources properly acknowledged and are the figures used with permission?
4. For each proposal, does the author demonstrate familiarity with the scholarly literature surrounding the proposed project? Do the references seem complete? Are the references primarily to Web sites? To books? To journals? To articles in conference proceedings?
5. For each proposal, is it clear how the proposer intends to carry out the research and what the final deliverables (e.g., programs and data sets) will look like?
6. For each proposal, does it seem to be feasible as a senior project at Allegheny College?
7. For each proposal, highlight any features that your group found to be particularly well-done. Highlight any features that need improvement. While remembering the importance of writing and speaking in a fashion that is constructively critical, feel free to make additional comments concerning the proposals.