Guidance to AMSC/CMSC 663-664 Proposal & Reports

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ABSTRACT:
This document describes guidance for the project proposal and reports. First page should contain: title, author’s name/affiliation/contact information, project advisor’s name/affiliation/contact information, and short abstract like this one.

Items to be covered are described next.

Guideline for Proposals and Reports I

1. Project Background / Introduction
   ▪ Present problem
   ▪ Describe existing solutions

2. Project Goal
   ▪ Define the project objectives as scientific computing problem

3. Approach
   ▪ Describe overall outline and how the project goal is achieved
   ▪ Describe possible (predictable) issues and plan to solve them

4. Scientific Computing Algorithms
   ▪ Present algorithms/solutions to be implemented
Guideline for Proposals and Reports II

5. Implementation
   ▪ Describe platform (hardware/software) and language
   ▪ List and describe databases to be used (note: must be unclassified/available for public dissemination)
   ▪ Comment on complexity and numerical issues

6. Validation Methods
   ▪ Describe how to validate the implementation of each element in the project, e.g., if golden standards exists

7. Test Problems for verification
   ▪ Describe how to test the implementation

8. Results
   ▪ Discussion of (expected, at the time of the proposal) results

Guideline for Proposals and Reports III

9. Concluding Remarks
   ▪ Summarize the project effort

10. Timeline
    ▪ Split the project in phases if possible and allocate time to each phase
    ▪ Describe overall project schedule

11. Milestones
    ▪ Discuss objective measures to test project progress
    ▪ Relate milestones to each phase/time period described in time line

12. Deliverables
    ▪ Describe tangible results that you promise to deliver at the end of the project; these can include: code, report, archives of results, databases

13. Bibliography
    ▪ List references used in the project proposal or report
Additional Comments

- Project proposal serve as the foundation for upcoming reports.

- Give credit properly
  - All references must be properly cited at where they are used and included in the bibliography
  - All online materials must be appropriately identified by the URLs or at least the name of the sites
  - DO NOT cut-and-paste; plagiarism is a very serious offense at UMD and academic/science/engineering community

- For submission (either draft or actual),
  - use .pdf to avoid the conversion issues between mac and pc
  - If >10MB in size, use dropbox etc and avoid email
  - All materials are due in 3days advance; the instructors may request earlier submission as needed