Purpose

The final exam for this course will be a presentation of a project relevant to computational methods and numerical analysis. The purpose of the project is to learn, practice, and share subjects outside of what was taught in the course. The projects are intended to be fun, challenging, and informative to the students in the class. Ambitious projects are encouraged, but not required.

Rules and Deliverables

Rules

1. No late projects will be accepted because you must present your work during the final exam period and that cannot be moved. You will be given a grade of zero if you do not present during the final exam session. In rare circumstances, permission may be given to present your project during a lecture instead of during the final exam session.
2. Attendance is required for all presentations at the final exam period, even if you present at an earlier date.
3. Presentations must be given in Microsoft Power Point format.
4. Do not repeat derivations or formulations that are provided in the course notes. Only provide what you have done that is new or outside of the lecture material.
5. You may work in teams, but proportionately more work and results will be expected from a team than from an individual.
6. Use the technical presentation and graphics checklists to review your presentation and graphics.

   Checklist for Graphics
   https://empossible.net/wp-content/uploads/2021/08/Graphics-Checklist.pdf

   Checklist for Presentations
   https://empossible.net/wp-content/uploads/2021/08/Presentation-Checklist.pdf

Deliverables

The specific deliverables are summarized below. You will be given a grade of zero if these items are not received by the instructor at least 24 hours prior to your presentation. The preferred submission format is a single zip file with everything included (PPT, media files, MATLAB codes, etc.).

- **Presentation Materials** – Your presentation must be in Microsoft PowerPoint format. Your slides and all other media files needed for your presentation must be submitted within 24 hours prior to your presentation.
- **Electronic Files** – Your projects may include media files such as animations, movies, or special graphics. Data files may include computer programs, files created from other simulation packages, raw data, etc. Computer programs must be clean, well organized, and well commented.
- **Oral Presentation** – You will present your project during the regularly scheduled final exam period for the class. The presentation should be 10 minutes in duration plus 5 minutes for questions from the class. This time allocation is subject to change depending on class time and number of presentations.

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Grading Rubric

Student Name:_____

Worthiness of Your Topic Topic must be of sufficient difficulty to be worth a final exam in Computational Methods. You will earn further points for significance and originality of your topic.	15%	
Completeness of Your Information Your slides and presentation must contain a sufficient amount of detail to fully explain what you did, why you did it, and how you did it. Your presentations should include your methods, results, and conclusions with enough detail that others can reproduce your work.	20%	
Professionalism of Your Media Your slides, graphics, movies, media files, MATLAB codes, etc., must be of professional quality and publication-ready. Use the graphics and presentation checklists.	15%	
Professionalism of your Oral Presentation You must demonstrate good effort to present your project in a professional and understandable manner.	15%	
Accuracy and Trustability of Your Results Your results must be accurate and trustworthy. This can be done by justifying your results through benchmarking, conservation analysis, convergence analysis, etc.	15%	
Mastery of Subject Matter You must demonstrate you understand the material and can apply what you have learned.	20%	
Above and Beyond Is your project exceptionally novel and/or significant? Did your project require an extraordinary amount of work? Did you create animations or special graphics? Have you done anything that goes beyond what is expected?	NA	

Total: 100%

Grade: _____

Comments: _____

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