

ECEn 563
Numerical Methods

Project
Due Apr. 15, 2026

Use an AI tool to develop a numerical simulation code, tool, or software package of your choice. The problem that the code solves can be related to your research. Examples might be a 3D version of a code we considered in class, a model with a more sophisticated boundary condition or post processing, a flexible geometry design engine, or a numerical method that is different from the ones we considered in class. The idea is to explore what is possible. Ideally you will generate a powerful, working code with minimal intervention on your part.

Turn in the following:

1. A sampling of your prompt(s) (no more than one page)
2. The code (the first 2-3 pages if it is very long)
3. Results for a specific problem obtained with the code
4. Validation that shows that the numerical algorithm is likely to give correct results

Evaluation: 4 points for creativity, 2 points for a working code, 2 points for results for a specific problem, 2 points for validation of results