## Final Project

## **NUEN 647**

Presentation Dates: Dec 5 and 6

Take a problem of interest to you and apply some of the methods in this class to answer the problem. Where appropriate you should use uncertainty propagation methods, emulators, and predictive models. There will be two intermediate deliverables, a final report, and a presentation. The deliverables are

- A report detailing your problem of interest, your quantity or quantities of interest, your uncertain parameters, and a prediction you would like to make. This report should be 2-5 pages in length and include enough detail to make sure that I can understand your project. Due Date: Nov. 1
- A preliminary report on your problem that describes
  - A local sensitivity analysis of the problem,
  - Plans for a more detailed uncertainty study beyond the local analysis. Results for this detailed study could be included here as well. Additionally, this is an opportunity to shift your original plan based on the analysis up to this point.
  - Extra points will be given for more difficult analyses (e.g., adjoints or regression based approaches).

## Due Date: Nov. 11

• A final report summarizing the entire project and the final results/analysis. A 10 minute presentation for class will be given on either of the dates above.