Resources: Expectations and Rubrics

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Student Engagement

The student engagement score is intended to keep you involved in the course. It involves a weekly written submission, which I promise to read. You will earn the full student engagement score for the term if you make "good faith" student engagement submissions each week in which it is collected.

Problem-sets

You may work together with classmates while solving the *problem sets* – you are free to share mathematical and computational ideas with other students in the course. However, *any work you submit must be written by yourself* – do not directly copy anyone else's work!

Your solutions/submissions will be marked to reflect the following criteria:

- mathematical correctness

  Is the solution mathematically valid?

- explanation and exposition

  Have assumptions and hypotheses been explained? This includes mathematical hypotheses, as well as modeling choices and assumptions.

- computer code

  You are free to adapt and use computer code distributed in the course (via `jupyter notebooks`, e.g.).

  Inclusion of the code used in your solutions is encouraged. (Occasionally, it is required, but this will be made clear in the assignment instructions).

midterm reports

The midterm reports concern problems that are somewhat more elaborate than the usual problem-sets.

In preparing your submission, take care to write clearly and carefully. The same rubric considerations for problem-sets will apply.

final reports

Since you *choose* and get approval for a topic, there are some additional rubric criteria. The submission should:

- give a clear statement of the problem and your modeling goals.
- provide an explanation for assumptions made, including discussion of how they affect the problem.
- describe the model used or developed.
- describe model testing, sensitivity analysis, computational requirements, and error analysis.
- discuss the strengths and weaknesses of your model or approach.

- provide a literature review. This includes citation of a few references of existing research on the subject.
