

Math 647: Report formats and grading policies

1 Oral reports.

Oral reports will be twenty-five minutes long (20 minutes plus 5 minutes for questions). Prepared overhead transparencies or PowerPoint are recommended. Copies of all slides must be turned in after your talk. The talk should describe your group's modeling effort, not just your own contribution. Include as appropriate: a brief overview of the problem, background material, assumptions, a description of the model, the strengths and weaknesses of your model, mathematical and numerical results, comparison with real-world observations (if possible), conclusions and possibilities for improving the model.

General hints. The talk should be addressed to a knowledgeable audience (your class members). Practice the talk before giving it to the class. Seek suggestions for improvement from other members of your group, but remember that it's *your* talk.

Grades:

- *Clarity (50 %).* Was the talk comprehensible, convincing, interesting?
- *Content (50 %).* Was the talk prepared well, logically organized with carefully selected material, no extraneous details, and no important exclusions?

2 Written reports

The written report should be a product of your group. It should consist of at most fifteen pages, *including figures and references*. Reports should provide a comprehensive summary of your group's modeling activity. The report must include:

- The project's title and the members of your group.
- A summary (or abstract), consisting of a concise (no more than 1/2 page) description of the problem, your model, main results, and conclusions.
- Carefully organized and well-written material grouped into sections with appropriate references to the literature. Include background material, assumptions, description of you model, strengths and weaknesses, computational or analytical results, etc. Remember, you must include enough information so that I can reproduce your results.

The use of T_EX, L^AT_EX, or L^YX for text formatting is encouraged.

General hints. A few figures are often extremely useful in conveying information. In general, don't try to "pad" the report to reach the page limit. Relatively short, clearly written reports are viewed more favorably than long, murky reports.

Grades:

- *Background Research (25 %)*. How thoroughly was the problem investigated? (background material, sources of relevant data, justification of assumptions, study of related models, etc.)?
- *Fidelity (25 %)*. How well does the model capture or explain the behavior of the real system in question?
- *Cost and aesthetics (25 %)*. Is the model clean and simple enough to allow substantial computational or analytical study?
- *Results and conclusions (25 %)*. Were you able to use your model to obtain useful information about the real system in question (and in particular, to answer the original question)?