Projects in a Large Lecture Format Differential Equations Course

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My course:

• Four-credit, sophomore-level course that usually follows three semesters of calculus
• 15 week semester with 3 lectures and 1 discussion section meeting per week
• 3 in-class exams during the semester and final exam determine 75% of grade
• 2 group projects determine 20% of grade
• Spot checked weekly homework is 5% of grade
• 80% engineering students, 10% math majors
Projects: What is a good project?

• More than a list of commands for the students to execute.
• Mathematics should be so central that the use of technology becomes a secondary rather than a primary aspect of the assignment.
• Force the students to interpret and explain.
• Flexible (or vague) enough so that some of the reports surprise you.
Gareth Roberts on Grading Projects

Helpful tips:

• Vary the data/parameters per group
• Limit the length of the report
• Ask specific questions
• Evaluation check-sheet
• Computer programs to check student’s data/results
• Place model reports on reserve/web

Grading time: 15-30 minutes per report