

# A Computer Laboratory for Mathematical Exploration

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Thanks to a National Science Foundation Instrumentation grant we have set up a computer laboratory for use in our mathematics classes. This has resulted in major changes throughout our curriculum, but the biggest influence is now being felt in the calculus sequence. Some of the features of our project include:

- A two hour laboratory meeting every week in the first two semesters of calculus.
- Laboratory exploration (with Maple) of the most important concepts from calculus before they are introduced in the textbook.
- The use of electronic journals to aid in communication between student and instructor.
- The use of graphing calculators and a reform calculus approach (Dick and Patton) during the other meetings.
- The use of Geometer's Sketchpad in our College Geometry Course.
- The use of Matlab in our Linear Algebra Course.

We will describe the effects of these changes on our students and our curriculum. Sample laboratory projects will be available for inspection.