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http://www.pointloma.edu/MICS.htm

Project Used: Euclid's Algorithm for the Greatest Common Divisor

Class: MTH242 Number Theory with Proofs
This is a two unit class that is an introduction to number theory with an emphasis on the writing of proofs. This class has calculus as a prerequisite. The majority of the students in the class were sophomore level mathematics majors, however there were a few physics majors who are minoring in mathematics and one student who is a liberal studies major (prospective elementary school teacher) who was taking the class as part of the coursework for a concentration in mathematics.

How the Project Was Used:
Because this was a number theory class, the project was modified to focus on the Euclidean algorithm and the computer programming tasks were eliminated. The paper was distributed to the students in advance and the students worked together in groups in class for two days discussing the exercises. Lengths of paper and scissors were distributed to the groups as a way for them to work through the steps described in Euclid's proof. The students wrote up their solutions to the problems individually and turned them in two days after the work in class was concluded.

At the end of the project the students appeared to have a more solid understanding of the algorithm than they get from an algebraic description of the algorithm.