Abstract for an Invited Paper for the APR06 Meeting of The American Physical Society

## Using Physics Education Research to Improve Student Learning in Large Enrollment Courses.

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The department of physics at the University of Illinois has systematically restructured its introductory calculus and algebra based physics courses. These changes were based on work from the physics education research community, including Peer Instruction, Just In Time Teaching, Tutorials and Context Rich Problem Solving. I will discuss the issues involved in institutionalizing these changes to the courses that have now been taught by more then 50 faculty members within the department. I will also show qualitative and quantitative results of the impact changes have had.