

Abstract Submitted  
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**Designing and Creating a Set of New Lab Experiments for a Traditional Fluid Mechanics Course in Civil Engineering** DAN BUDNY, University of Pittsburgh — Many fluids lab facilities and their associated student experiences were built back in the 1960-1970 time frames. They typically consisted of large facilities that included wind tunnels, flumes, wet wells, pump stations, etc. Today these labs are physically and pedagogically out dated and the need for lab space is forcing the closing of large scale labs. This is the same basic problem within the Swanson School of Engineering at the University of Pittsburgh. Thus we have replaced all the old equipment and lab experiences with small bench top experiments with a focus on applying the large body of knowledge associate with better student learning experiences. This paper will describe the concepts behind the design of the new experiments and the learning improvements discovered as a result of moving from a few large experiments to a larger number of smaller scale experiments.

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