Taking inquiry to the next level: Tablet PC’s to stimulate active learning and unify introductory physics curriculum TIKHON BYKOV, Physics Department, McMurry University, Abilene, TX 79697, YELENA KOSHELEVA, Psychology Department, McMurry University, Abilene, TX 79697 — A project has been started in 2005 to design innovative curriculum for the intro physics courses at McMurry University. The project is rooted in science education research and ideas from the NFW. The goal is to achieve better integration of traditional course components by means of instructional design and technology. First, a system of flexible curriculum modules with emphasis on inquiry-based teaching has been introduced. Second, technology is used to improve continuity among module components (lecture/lab/discussion) and stimulate active learning. Enabling technology suite incorporates Tablet PC’s and software applications including java-based Physlets, tablet-adapted personal response systems, and PASCO data acquisition systems. Lab curriculum has been modified to accommodate for different learning styles, and levels of baseline knowledge. Activity options and pre-lab Physlet-based assignments were added. To enhance knowledge generalization, multiple experiments are used to illustrate different aspects of the same physics phenomenon. Physlet-based problems were adapted for student peer group discussions. Student feedback showed that modifications were beneficial. Student knowledge assessment, performed with the FCI test, indicated improvement in student learning.