

Science, Technology, Engineering, Math (STEM) Education Initiative 2011 Report (One page version)

The STEM Education Initiative works to improve STEM education “from K to Gray” on campus, in North Carolina, and across the nation.

On-campus efforts

We financially supported the creation of a new **45-seat SCALE-UP room** in G100 Harrelson Hall, allowing two introductory biology classes and two physics courses to be taught in this mode for the first time. A new class for preservice elementary education teachers has also been taught for the first time in new space

Eight NSF workshops were supported, so faculty might be more successful in getting funding for innovative education projects.

We successfully **hired Dr. Webster West as Professor of Statistics, doing education research**. He comes to us from Texas A & M and is very well known for his *StatCrunch* web-based statistical package.

The **STEM-oriented Early College High School** opened in the fall, and administrators and teachers are in place.

External efforts

Dr. Beichner served on North Carolina’s Joint Legislative **JOBS Commission**. He worked with a task force to develop a statewide plan for STEM education that is now in place. The Commission was able to recommend and see passage of eight pieces of legislation impacting STEM education in the state.

Beichner served on the NC STEM Advisory Panel and helped craft the **Attributes of STEM Schools and Programs** policy, which has been adopted by the North Carolina Department of Public Instruction. He also consulted on the design of the NC STEM Learning Network’s **web portal** providing access to 500+ STEM education-oriented programs across the state.

Beichner gave a total of **21 colloquia/plenary talks** on SCALE-UP during 2011, up slightly from 19 in 2010. One of these was at the National Active Learning Conference, held in the new Instructional/Student Services Building at the University of Minnesota. The facility holds 20 SCALE-UP classrooms.

Beichner received the **McGraw Prize** in Education, the premier honor in the field. Details of the prize can be found on Wikipedia <http://en.wikipedia.org/wiki/Harold_W._McGraw_Prize_in_Education>. He was also named a Fellow of the American Association for the Advancement of Science.

Plans

There is an ongoing need to support hiring of STEM faculty to conduct education research, perhaps starting in MEAS and Physics. Research on educational innovation is one of only four research focus areas in the new NCSU Strategic Plan. Our original plan to become the world-wide leader in this type of interdisciplinary research has been sidelined by the economy. We need to get back on track.

More and more graduate students in multiple departments are requesting support.

We intend to continue supporting SCALE-UP classrooms and adoption efforts on campus. We will be building two SCALE-UP rooms in the Early College High School and will need to provide professional development for those teachers. National and international dissemination efforts will continue.