IMPACTSEED Begins 2008 Session

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On Monday, the sixth year of Improving Physics and Chemistry Teaching in Secondary Education, commonly known as IMPACTSEED, began at Jacksonville State University.

“I never expected it to act this long,” said Dr. Nouredine Zettilli, director of IMPACTSEED and a member of the faculty at JSU’s Department of Physical and Earth Sciences, adding that need in the area for better instruction is one of the reasons they have been continuously funded. “If the need is not there and if your program is not robust enough to deliver contents according to state and national standards they will not renew it. Every year it is a new submission.”

The program, which reinforces chemistry and physics concepts for teachers and gives them hands-on projects they can use to relate a lesson to their students, is the only one of its kind in Alabama and is funded by the Alabama Commission on Higher Education through No Child Left Behind.

“We are the only program in Alabama that deals with physics and chemistry. Most of the other programs deal with English or biology or math,” said Zettilli.
Since September 2007, Zettilli has been in The United Arab Emirates on a Fulbright Fellowship, only arriving back in Jacksonville last week. This meant he was away during the planning phase for this year’s IMPACTSEED and had to rely on Dr. Noureddine Beckhouche of the Technology and Engineering Department to get much of the two-week program set up.

Being in the Middle East didn’t keep him from working with IMPACTSEED, however. His hosts quickly learned of his summer workshops and asked him to hold conferences during his time there.

“I thought I would go over there and not do IMPACTSEED, but I was doing IMPACTSEED over there,” said Zettilli. “We started this here, in Jacksonville, Alabama, and all of a sudden I go to UAE and the physics department tipped off the ministry of education, saying I had some experience in outreach.”

Zettilli wound up giving talks in UAE, Qatar and Saudi Arabia.

IMPACTSEED’s main focus is to instruct high school teachers on the best way to introduce technology into their curriculum and how to use it in hands-on experiments that allow the students to relate the theories they have learned into practical uses.

In addition to Zettilli and Beckhouche, Jan Wilson of the Department of Education and Drs. Al Nichols and Laura Weinkauf of the Department of Physical and Earth Sciences teach the participants and walk them through the lab projects.

The college professors who lead the lectures and labs, however, don’t just lecture to the program participants, they listen to them as well.

“We learn from each other, really. Although we provide knowledge and we provide content, when it comes to best practices some of the teachers have some very effective practices,” said Zettilli. “We have discussions in the classes where we share among ourselves the best practices and the best way to teach this topic.”

Zettilli initially began the program as a reaction to what he saw in his physics classes – students who either had not taken physics in high school or who were not given proper instruction. Since the program began, he has seen a marked improvement in the knowledge base his students have and in the number of students pursuing science as a major.

“Since we started six years ago we have seen a tremendous increase in the number of students majoring in chemistry and the quality of students taking freshman physics and chemistry is much, much better,” said Zettilli.