



The RIGHT STUFF - Appropriate Mathematics for All Students

by Rob Kimball, Project Director

As the title suggests, this NSF-funded project is promoting the right mathematics courses for all students. The project encourages faculty to not only examine the content to be sure it is meaningful and appropriate, but also encourages the use of the most promising practices, technology that aids learning, and assessment techniques that guide instruction and inform the students.



The focus has been on college algebra, but that course can encompass a variety of topics and fit a number of niches. Faculty who have attended workshops sponsored by the grant have found the ideas can be used in a variety of courses. The project coordinators would love to share ideas at your college or with your affiliate. Email the project director at rkimball@waketech.edu for details.

One of the messages conveyed in the workshops is the idea that faculty must create a critical learning environment. Faculty engineer this environment using a variety of methods that involve students to a deeper degree than does simply lecturing. Some faculty see the lecture as a means of providing students with information and skills they need and then can repeat later on for a grade. This instructional method encourages students to only remember material long enough to produce what is expected on a test. It is based on the premise that knowledge is received, not constructed.

It is believed, and research supports, that knowledge is constructed. When students are engaged in activities that require them to think critically as they work towards a solution they can communicate to others, they internalize the mathematics and alter their way of thinking, acting, or feeling. Learning has taken place.

There are four maxims that are shared in the workshops to guide instructors as they prepare for class. It is hoped that you find them helpful.

Understanding over Memorizing
Integration over Isolation
Depth over Breadth
Application over Recognition