

## ***The National Science Foundation Kentucky ATE Curriculum Project***

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One of the primary goals of the NKATE Project (DUE-9454585) is to improve the success rate of community college students taking college algebra, science, and technology courses. NKATE Curriculum Group members are University of Kentucky Community College System faculty who consider intermediate algebra reform crucial to successful community college mathematics programs.

The group has developed reform intermediate algebra materials, ***An Introduction to Functions Through Applications***, that were designed in the spirit of the AMATYC Standards for problem solving, modeling, connecting with other disciplines, and technology. Course materials rely heavily on collaborative activities and hands-on experiments. The TI-82 graphics calculator is used as a tool throughout the course to visualize graphs of functions and to replace tedious calculations. Topics are motivated by student activities and Calculator-Based Laboratory (CBL) experiments to generate data describing real world situations.

The NKATE materials have been piloted at eight community colleges in Kentucky, beginning the Spring of 1995, and also at St. Petersburg Junior College in beginning in the Spring of 1996. Most of the eighteen curriculum group faculty are in mathematics, but physics, industrial-electrical technology and computer information systems are also represented. This assures that project activities will connect with disciplines other than mathematics.

Several members of the group were participants in the Northern Kentucky University NSF Calculus Institute in 1993-1994, and some have been involved in local NSF Calculus projects. The group includes three past-presidents, the current president, and the president-elect of the Kentucky Mathematical Association of Two-Year Colleges (KYMATYC).

The curriculum group have signed a book contract with Addison Wesley Publishing Company which will have a class-test edition of the text available in August, 1996. The group welcomes input from reform-minded faculty. If you are interested in class testing the materials or would like further information, please contact ***Darrell H. Abney***.

**National Science Foundation**  
**Kentucky Advanced Technology Education Project**

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*The Kentucky Community College System is establishing computer facilities at each of its fifteen widely separated community college campuses. These new facilities are being utilized for statewide reform of the mathematics algebra-level and calculus which form part of the curriculum for students in advanced technology programs. The labs will also support development of new two-year curricula in telecommunications and computer system management. A system of formal courses (taught using satellite facilities) to train faculty and staff to maintain the network system are catalyzing Continuing Education/Community Service programs in the use and administration of network systems and will develop the capability to offer a new associate degree program in network system administration. At the conclusion of this project approximately 40% of the system's intermediate and college algebra level mathematics courses will be taught as integrated courses in a collaborative learning environment using technology as a learning tool. While 15,000 students across Kentucky will directly benefit from the revised curriculum during the actual project period, the project will ultimately affect many thousands more students and ordinary citizens.*

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