

MINUTES OF THE HOUSE EDUCATION COMMITTEE

The meeting was called to order by Chairman Clay Aurand at 9:05 A.M. on January 25, 2008 in Room 313-S of the Capitol.

All members were present except:

Don Hill- excused
Ted Powers- excused

Committee staff present:

Theresa Kiernan, Office of Revisor of Statutes
Dianne Rosell, Office of Revisor of Statutes
Dale Dennis, Kansas State Department of Education
Martha Dorsey, Kansas Legislative Research Department
Sharon Wenger, Kansas Legislative Research Department
Janet Henning, Committee Assistant

Conferees appearing before the committee:

Jan Lariviere, UKanTeach Program Coordinator, University of Kansas
Dr. Joe Heppert, UKanTeach Co-Director, Chemistry Department Chair, University of Kansas

Representative Pat Colloton introduced Jan Lariviere, UKan Teach Program Coordinator, and Dr. Joe Heppert, UKan Teach Co-Director, to Committee members who then gave an overview of the UKan Teach program. It was stated that 42% of the teachers will leave the field within seven years and 36% of the teachers will be eligible to retire. Mrs. Lariviere stated that during the next school year, according to information from the Kansas State Department of Education, there will be over 400 science and mathematics secondary teaching positions in Kansas with no Kansas-prepared teachers to fill them.

The UKan Teach program is a partnership between University of Kansas College of Liberal Arts and Sciences, University of Kansas School of Education and Kansas school districts. The program is a four year program and modeled from the successful UTeach program from the University of Texas at Austin.

It is planned for the program to double the number of KU math and science licenses each year to approximately 50 per year. (Attachment #1)

A question and session followed the presentation.

The meeting was adjourned at 9:55 A.M. The next meeting is scheduled for January 30, 2008.



Jan Lariviere
UKanTeach Program Coordinator jlariviere@ku.edu

Dr. Joe Heppert
UKanTeach Co-Director, Chemistry Dept. Chair jheppert@ku.edu

Center for Science Education
College of Liberal Arts and Sciences



Where are the future STEM leaders going to come from if our science and mathematics education programs collapse?

People like:

- **Clyde Tombaugh** (Burdett, KS) – discoverer of Pluto
- **Jack Kilby** (Great Bend, KS) – Nobel prize for integrated circuit
- **Walter Sutton** (Russell, KS) – chromosome theory of heredity; used Kansas grasshoppers



“The most significant factor in student achievement is the teacher...”

Alexa Posny, State Commissioner of Education



Teacher Shortage In Kansas:

- **42% of our teachers leave the field within seven years**
- **36% of our teachers are eligible to retire**
- **25% fewer students are going into teaching over the past six years**
- **Next school year there will be over 400 science and mathematics secondary teaching positions in Kansas with no Kansas-prepared teachers to fill them.**

Kansas State Department of Education

Teacher Shortage In Kansas:

- **New licenses in chemistry decreased by half to 7 last year**
- **Physics teacher licenses declined 67% to 2 last year**
- **Over the last 6 years, KS teacher biology licenses dropped from 235 to 35**
- **Of the 6 IHEs with the largest number of science and math teachers already teaching in KS, not one of these produced more than 15 science teachers last year**
- **One IHE did not produce a single new science teacher**

Kansas State Department of Education

UKanTeach Program

An Additional Pathway to Teacher Licensure
in Secondary Mathematics and Science at
The University of Kansas

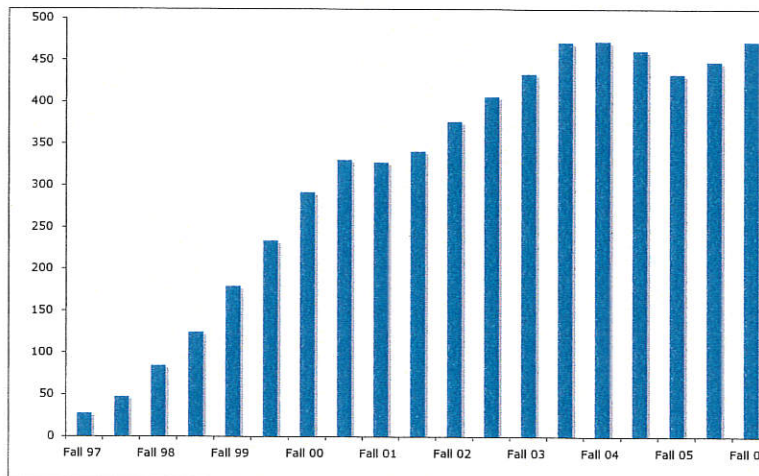
A Partnership between:
KU College of Liberal Arts and Sciences
KU School of Education
Kansas School Districts

UKanTeach Program

4-year program - degree in a science or mathematics discipline and a secondary teaching license; modeled on the successful UTeach Program from the University of Texas at Austin

UKanTeach plans to double the number of KU math and science licenses each year to approximately 50/yr

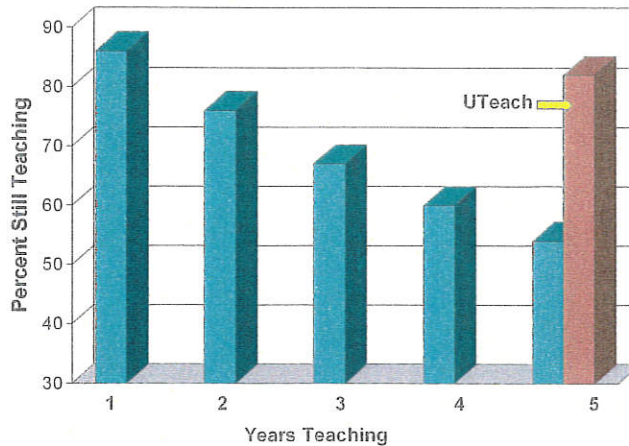
UTeach Enrollment at The University of Texas at Austin



Growth of UTeach from 1997 to 2006

Source: Michael P. Marder

New Teacher Attrition at UT Austin



Source: Richard M. Ingersoll, 2003

Myth vs. Reality

- Elite science and math students are not interested in teaching careers.
 - *Actually when UT surveyed science and math students, 25% had seriously considered teaching as a career but had been discouraged by parents, classmates or professors.*

- Training teachers is the responsibility of Schools of Education and/or second tier institutions... Science/math students and faculty at research universities have more important things to do.
 - *Colleges of Science have a responsibility to lead the way to solutions in math/science education and will directly benefit from that solution.*

Myths vs. Reality at UT Austin

- Science/Math faculty do not value and would not/could not participate in a teacher preparation program.
 - *Science/Math faculty are full and proud participants in UTeach at UT Austin. Some extremely strong faculty chose UT over competing offers BECAUSE of UTeach participation.*
- All you really need to be a great teacher is knowledge of your discipline. Education courses are a waste of time.
 - *Pedagogy training is very important but it needs to be relevant to the discipline and focused on student learning.*
- University science/math professors know how to teach middle and high school students
 - *They don't*

Keys to UKanTeach Success

- Collaboration between the College of Liberal Arts and Sciences and the School of Education
- Early and continuing positive experience teaching in classrooms
 - **Field experiences with inspiring teachers create satisfaction and commitment and prepare students more effectively**
- First two courses offered at no cost to students
 - **Invite science/math majors to participate and pay tuition for the first courses**
- Master teachers as faculty & advisors
 - **Supply real life experience, guidance, and inspiration**

Keys to UKanTeach Success

- Internships and scholarships
 - Internships provide financial help in an educational setting, augment student training, and maintain commitment
- Compact degree plans that allow most students to graduation in four years
- Innovative new professional development courses combine content material and pedagogy
 - Focus on teaching science & math, how students learn, use of technology in teaching; research experience
- Support for new teachers helps insure success

UKanTeach Entry Points

	Semester 1	Semester 2	Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8
Freshman Pathway →	UKan 1	UKan 2	Knowing & Learning	Classroom Interactions	Perspectives Reading	Research Methods	Project-Based Instruction	Student Teaching
Sophomore Pathway →			UKan 1	UKan 2 Knowing & Learning	Classroom Interactions	Perspectives Reading	Research Methods Project-Based	Student Teaching
Junior/Senior Pathway →					UKan 1 Knowing & Learning	UKan 2 Classroom Interactions Reading	Research Methods Project-Based Perspectives	Student Teaching

STEM Teacher Development – Necessary “Birth” to “Death”

- Recruitment
- Preparation
- Induction – first three years
- Professional development – career long
- Retirement – retire-rehire or Master Teachers in teacher preparation programs

Funding for UKanTeach

- Primary funding support will come from KU:
 - faculty salaries, advising, staff support
- Significant dedicated facilities

Additional funding is needed to support some of the special features critical to UKanTeach success:

- Tuition for the first two courses
- Mentor teacher stipends for field experience in Kansas classrooms
- Paid Internships in the non-profit community
- Scholarships
- Support for new teachers

Kauffman Foundation - \$250,000 – already awarded

National Math and Science Initiative – UKanTeach is one of twelve institutions selected to receive \$2.4 million – ExxonMobil funds (\$1 million must be matched within 4 years)

For More Information

- UKanTeach at the University of Kansas
<http://UKanTeach.ku.edu>
- Center for Science Education at KU
<http://kuscied.ku.edu>
- UTeach at UT Austin
<http://www.uteach.utexas.edu>
- The UTeach Institute
<http://www.uteach-institute.org>
- The National Math and Science Initiative
<http://www.nationalmathandscience.org>

Center for Science Education

<http://kuscied.ku.edu>



<http://UKanTeach.ku.edu>

Thank you!