UTeach: An innovative Teacher Preparation Program for Math and Science Majors
The UTeach program was developed at The University of Texas at Austin to help address the disturbing shortage of qualified math and science teachers in this country.

UTeach integrates a rigorous math and/or science major, research experience, acquisition of effective, inquiry-based teaching techniques, field experience, and certification in a 4-year program.
From a pilot project with 28 students in the fall of 1997, UTeach at UT Austin has matured to a high-profile, well-respected program with an ongoing program enrollment of more than 600 students.
**UTeach Austin Student Statistics**

**UTeach Student Statistics**

- **Mean GPA**
  - UTeach: 3.26, 3.24, 3.33, 3.2, 3.18, 3.16, 3.14, 3.12, 3.1, 3.08
  - College: UTeach, College

- **Percent Retention**
  - UTeach: 80%, 70%, 60%, 50%, 40%, 30%, 20%, 10%, 0%
  - College: UTeach, College

- **Percent Minority Students**
  - UTeach: 30%
  - College: 25%
  - UT Austin: 20%

**UTeach students have high SAT scores, high GPAs, very high retention in the major, and there is a higher percentage of minority students in the program than in the University as a whole.**
UTeach Austin Graduates

Year: 1999-2000 to 2010-11
Graduates: 2 to 675

WE MULTIPLY SUCCESS
UTeach Graduates and Students Served
2010

Teachers Produced and Estimated Students Served
UTeach Austin | 2000–2010

<table>
<thead>
<tr>
<th>Year</th>
<th>00-01</th>
<th>01-02</th>
<th>02-03</th>
<th>03-04</th>
<th>04-05</th>
<th>05-06</th>
<th>06-07</th>
<th>07-08</th>
<th>08-09</th>
<th>09-10</th>
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<tbody>
<tr>
<td># of Graduates</td>
<td>2</td>
<td>33</td>
<td>46</td>
<td>40</td>
<td>66</td>
<td>74</td>
<td>74</td>
<td>70</td>
<td>66</td>
<td>68</td>
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</table>

Total Number of Graduates: 539
UTeach Graduates: Retention in Teaching

As of 2009 more than 80% still teaching after 5 years

Percentage teachers left in classroom
SASS* vs UTeach

<table>
<thead>
<tr>
<th>Years Teaching</th>
<th>SASS Cohort 1991</th>
<th>SASS Cohort 1994</th>
<th>SASS Cohort 2000</th>
<th>SASS Cohort 2004</th>
<th>UTeach</th>
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<tbody>
<tr>
<td>1</td>
<td>100%</td>
<td>90%</td>
<td>80%</td>
<td>70%</td>
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<tr>
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<td>70%</td>
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<tr>
<td>5</td>
<td>60%</td>
<td>50%</td>
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</table>
UTeach Program Features: The Elements of Success

1. Active Student Recruitment and Support
2. Early, Continuous and Intensive Teaching Opportunities
3. Dedicated Master Teachers and Coaches, Mentors and Teacher Models
4. Compact, Flexible 4 Year Degree Plans
5. Cross-College Collaboration
6. High Quality Mentor Teachers
7. Rigorous, Research-Based, Focused Instruction in Pedagogy
8. Individualized Induction Support
9. Distinctive Program Identity
Early, Continued, Intensive Field Experiences

- Active recruitment of STEM majors to “try out teaching” in field courses at no cost in the freshman year
- Students experience teaching from their very first semester and continuously throughout the program
- Students receive intensive coaching and feedback on lesson development and teaching
- Field experiences are tightly articulated with the UTeach curriculum and closely supervised by course instructors, master teachers and mentor teachers
- An internship program provides income and relevant work/teaching experiences for students
Master Teachers are experienced, successful former high school or middle school teachers employed as full-time clinical faculty who teach or co-teach all field-based courses.

- They recruit, nurture and support UTeach pre-service students as they become teachers.
- They share experiences and understanding of real classrooms and how to innovate within them.
- They provide knowledgeable connections with school district teachers and administrator.
Four field-based courses provide teaching experiences in elementary, middle and high school settings prior to the final Apprentice Teaching semester.
Compact degree plans allow students to obtain both a teaching certificate and a rigorous STEM degree within 4 years.

**A variety of program completion pathways permit program entry at all levels**

<table>
<thead>
<tr>
<th>Freshman Pathway</th>
<th>Sophomore Pathway</th>
<th>Junior/Senior Pathway</th>
<th>Post-Baccalaureate Pathway</th>
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<tbody>
<tr>
<td><strong>Semester 1</strong></td>
<td><strong>STEP 1</strong></td>
<td><strong>STEP 1</strong></td>
<td><strong>STEP 1 &amp; 2</strong></td>
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<tr>
<td><strong>Semester 2</strong></td>
<td><strong>STEP 2</strong></td>
<td><strong>STEP 2</strong></td>
<td><strong>Knowing &amp; Learning</strong></td>
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<tr>
<td><strong>Semester 3</strong></td>
<td><strong>Knowing &amp; Learning</strong></td>
<td><strong>Classroom Interactions</strong></td>
<td><strong>Research Methods</strong></td>
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<td><strong>Semester 4</strong></td>
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<td><strong>Project- Bsd Instruction</strong></td>
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<td><strong>Semester 5</strong></td>
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<td><strong>Research Methods</strong></td>
<td><strong>Apprentice Teaching</strong></td>
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<td><strong>Semester 6</strong></td>
<td><strong>Project- Bsd Instruction</strong></td>
<td><strong>Perspectives</strong></td>
<td><strong>Apprentice Teaching</strong></td>
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<td><strong>Apprentice Teaching</strong></td>
<td><strong>Apprentice Teaching</strong></td>
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<td><strong>Semester 8</strong></td>
<td><strong>Apprentice Teaching</strong></td>
<td><strong>Apprentice Teaching</strong></td>
<td><strong>Perspectives</strong></td>
</tr>
</tbody>
</table>

**Natural Sciences**
**College of Education**
**College of Liberal Arts**
**Cross-College Collaboration**

**Co-directors from COE and CN**

- Formally coordinated cross-college collaboration via steering committee
- Research and clinical faculty across all colleges actively involved in development and implementation of content and pedagogy courses
- Students take content courses and pedagogy courses simultaneously
Cross-College Collaboration

Program Co-directors

• College of Education co-director and College of Natural Science co-director

• Champions of the program who represent both colleges in:
  - Shared decisions
  - Presentations and community building with students, faculty, administration and potential donors
  - Dealing with day-to-day details of program effectiveness
  - Communicating “What is UTeach?” to all audiences at local, state and national level
Cross-College Collaboration

Steering Committee

• Primary formal mechanism for regular contact between the faculty and staff from colleges of education, natural sciences, liberal arts and engineering
• Co-directors are co-chairs
• Meets regularly (bi-weekly)

Administrative body that provides oversight and makes policy decisions for the program
Courses develop deep understanding of content and build strong connections between educational theory and practice.

Courses emphasize underlying connections between math and science and make explicit how research in learning informs how each subject is learned and taught.

Special content courses develop students’ perspectives on the historical development of math and science and provide opportunities to experience the processes and methods by which scientists and mathematicians discover new knowledge.

All courses integrate the design and use of authentic, effective assessments, use of technology tools, and equitable instruction.
Master Teachers provide graduates with on-demand and targeted support during their first 2 years of teaching

- one-on-one individualized support in the classroom
- targeted professional development workshops (specific to needs of STEM teachers)
- Leadership development
Distinctive Program Identity

• UTeach has a department-like status in the College of Natural Sciences with a wing of classrooms and office space in the center of campus

• Website provides comprehensive information and program is actively promoted through a variety of promotional materials

• No competing undergraduate programs
National UTeach Replication
**Cohort 1 (Began Spring 2008)**
Florida State University • *FSU-Teach*
Louisiana State University • *Geaux Teach*
Northern Arizona University • *NAUTeach*
Temple University • *TUteach*
University of California, Berkeley • *Cal Teach Berkeley*
University of California, Irvine • *UCI Cal Teach*
University of Colorado at Boulder • *CUTeach*
University of Florida • *UFTeach*
University of Houston • *teachHouston*
University of Kansas • *UKanTeach*
University of North Texas Teach North Texas (TNT )
University of Texas at Dallas • *UTeach Dallas*
Western Kentucky University • *SKyTeach*

**Cohort 2 (Began Spring 2010)**
Cleveland State University • *CSU Teach*
Middle Tennessee State University • *MTeach*
University of Colorado at Colorado Springs • *UCCS Teach*
University of Memphis • *UTeach MEMphis*
University of Tennessee, Chattanooga •
*UTeachChattanooga*
University of Tennessee, Knoxville • *VolsTeach*
University of Texas at Arlington • *UTeach Arlington*
University of Texas at Tyler • *UTeach Tyler*

**Cohort 3 (Will Begin Fall 2011)**
Boise State University • *IDo-Teach (BSU)*
Columbus State University • *Columbus Teach*
Southern Polytechnic State • *University SPSU Teach*
University of West Georgia • *UTeach West Georgia*
UTeach Universities

UC Berkeley
Northern Arizona University
UC Irvine
University of Colorado at Boulder
University of Colorado at Colorado Springs
University of Kansas
University of Memphis
University of North Texas
University of Texas at Arlington
University of Texas at Dallas
University of Texas at Tyler
University of Houston

Cleveland State University
Western Kentucky University
University of Tennessee, Knoxville
University of Tennessee at Chattanooga
Middle Tennessee State University
Florida State University
University of Florida
Louisiana State University
Temple University
UTeach Replication Progress
New Students Recruited Fall 2010

New Students Recruited into UTeach Programs
Preliminary Enrollment in Step 1
Fall 2010

Cohort 1
Cohort 2

Partner Universities

Number of Students Enrolled

FSU  LSU  NAU  TU  UCI  UCB  CU  UF  UH  KU  UNT  UTD  WKU  CSU  MTSU  UCCS  UM  UTC  UTK  UTA  UTT  UT Austin
UTeach Replication Progress
Total Enrollment as of Spring 2011

Program Enrollment
Universities Implementing UTeach
Cohort 1 and 2
Spring 2011

Cohort 1

Cohort 2

Partner Universities

Number of Students Enrolled
• Beginning in 2012, partner universities are projected to graduate between 450 and 600 students a year.
• Approximately 8,000 students are projected to graduate from UTeach programs nationwide by 2018.
• UTeach graduates are projected to teach approximately 4 million secondary STEM students by 2018.
• To further contribute to the growing national community working to strengthen STEM teacher preparation, a third cohort of universities began implementing a UTeach program in Fall 2011, and a fourth cohort is expected to begin in 2012.
Cohort 1 University Partners Program Logos
Cohort 2 University Partners Program Logos

- UCCS Teach
- CSUteach
- UTeach Arlington
- UTech Chattanooga
- MTech
- THE UNIVERSITY OF MEMPHIS
- UTeach MEMphis
- THE UNIVERSITY OF TEXAS AT TYLER