UTeach Model Implementation

Tennessee Universities Implementing UTeach
Spring 2014 Progress Reports

Prepared by the UTeach Institute
University of Texas at Austin
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**UTeach Elements of Success**

**Distinctive Program Identity**
UTeach has an established identity as a prestigious secondary STEM teacher preparation program that attracts high caliber students, experienced and successful master teachers, and tenure-track faculty who are interested in the reform of STEM education.

**Cross-College and School District Collaboration**
UTeach is a formally coordinated effort of the equivalents of the College of Education, the College of Liberal Arts, and the college(s) responsible for administering STEM degrees.

**Long-Term Institutional and Community Support**
UTeach is a long-term institutional and community priority that is sustained through ongoing financial support from university and college administrators, as well as a broader range of stakeholders concerned with STEM education reform. UTeach is afforded a level of stability similar to other university departments and is not an outreach effort.

**Compact and Flexible Degree Plans**
UTeach offers four-year degree plans that fully integrate students’ STEM content major requirements and UTeach program requirements and allow students to obtain secondary STEM teaching certification while earning degrees in science, computer science, engineering, or mathematics.

**Active Student Recruitment and Support**
UTeach actively recruits to attract the greatest possible number of STEM majors and provides significant resources and encouragement to maximize program and career retention.

**Dedicated Master Teachers**
UTeach master teachers—non-tenured clinical faculty with exemplary secondary teaching experience—are exclusively dedicated to student support and program success.

**Rigorous, Research-Based Instruction**
UTeach courses are designed to develop deep understanding of content of particular importance to future secondary STEM teachers and build strong connections between mathematics and science and between educational theory and practice.

**Early and Intensive Field Experiences**
In order to promote confidence and accelerate professional development, UTeach students begin a carefully scaffolded sequence of intensive teaching opportunities in their first semester of the program and continue these field experiences throughout.

**Continuous Program Improvement**
UTeach systematically collects and analyzes both student and program level data to make informed decisions about program development and improvement.
### Spring 2014 • Milestone Summary Matrix • Universities in Cohort 2

This document is intended to serve as an "at-a-glance" overview of progress made on milestones for grant distribution across university partners through the specified semester/quarter. These milestones track progress on minimal operational features and are not intended to serve as a measure of overall quality. For a more comprehensive assessment of program progress, please refer to the individual operations summaries and progress reports produced for each partner program.

<table>
<thead>
<tr>
<th>Milestones</th>
<th>Middle Tennessee State University</th>
<th>University of Memphis</th>
<th>University of Tennessee, Knoxville</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continue to enroll new students in program</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>Program approved by State and authorized to offer STEM teaching certification</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Functional classroom, office space, and student workroom secured</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Steering committee meets regularly</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>PEARS data submitted by established deadlines</td>
<td>ip</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>UTeach Institute-administered student surveys completed</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>UTeach equivalent courses offered as recommended by the implementation schedule, program model, and/or negotiated with the Institute</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>Appropriate UTeach equivalent courses listed in the Fall 2014 course schedule</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>Required Instructional Program Review materials submitted by established deadlines</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>Sufficient number of master teachers employed to adequately support the program</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>Accurate financials submitted by established deadlines</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

✓ indicates that the program has fulfilled expectations for the semester/quarter.

Ip indicates that an adaptation exists; more time is needed to determine progress and alignment with UTeach model and replication goals.

- indicates an area in which a permanent modification exists.

**Notes:**

**Middle Tennessee State University:** The program has submitted course roster data, but student level and university profile data has not yet been submitted.

**University of Memphis:** The University of Memphis program staff recently confirmed that the Tigers Teach program will not be continued past the grant period. The current milestones take into account the termination of the program at the end of Spring 2014. While Tigers Teach has enrolled new students every semester, the overall program enrollment is low and has not grown sufficiently to support current course offerings. A Tigers Teach Steering Committee has been established, but it does not meet regularly. All master teachers were released at the end of the spring semester. Instructional Program Materials were submitted for Apprentice Teaching, however the submission was incomplete and the course was not reviewed. Knowing and Learning in Mathematics and Science and Perspectives on Science and Mathematics have not met requirements per the Materials Review Process.
Total Program Enrollment: 197 students

Program Enrollment (Number of Unique Individuals Enrolled in MTeach)

The Percent of Math and Science Students Recruited into MTeach

Enrollment by MTeach Course, Spring 2014

Teachers Produced and Students Taught for MTeach

Cumulative number of students taught is based on an assumption that 80% of program graduates who go into teaching will remain for at least five years. Totals assume teachers will teach 150 students per year.

Actual number of cumulative graduates shown through previous year. Projected number of graduates shown for subsequent years.

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Students Taught</td>
<td>864</td>
<td>4719</td>
<td>11564</td>
<td>21401</td>
<td>34228</td>
</tr>
<tr>
<td>Graduates (per Year)</td>
<td>8</td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>Graduates (Cumulative)</td>
<td>8</td>
<td>36</td>
<td>63</td>
<td>91</td>
<td>119</td>
</tr>
</tbody>
</table>
**Student Characteristics - Spring 2014**

### Ethnicity - MTeach - (n=197)

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>MTeach</th>
<th>MTSU</th>
<th>BAS</th>
<th>Basic and Applied Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>22 (11%)</td>
<td>4221 (18.0%)</td>
<td>0 (n/a)</td>
<td>0 (n/a)</td>
</tr>
<tr>
<td>American Indian</td>
<td>n/a</td>
<td>70 (0.3%)</td>
<td>0 (n/a)</td>
<td>0 (n/a)</td>
</tr>
<tr>
<td>Asian</td>
<td>2 (1%)</td>
<td>746 (3.2%)</td>
<td>0 (n/a)</td>
<td>0 (n/a)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>n/a</td>
<td>795 (3.4%)</td>
<td>0 (n/a)</td>
<td>0 (n/a)</td>
</tr>
<tr>
<td>White</td>
<td>138 (70%)</td>
<td>16593 (70.9%)</td>
<td>0 (n/a)</td>
<td>0 (n/a)</td>
</tr>
<tr>
<td>Other</td>
<td>n/a</td>
<td>987 (4.2%)</td>
<td>0 (n/a)</td>
<td>0 (n/a)</td>
</tr>
<tr>
<td>Not Reported</td>
<td>35 (18%)</td>
<td>0 (0.0%)</td>
<td>0 (n/a)</td>
<td>0 (n/a)</td>
</tr>
</tbody>
</table>

*Data for the university and the college are from the most current data available.*

### Gender MTeach - (n=197)

- **Male**: 51%
- **Female**: 49%

### Majors for MTeach - (n=197)

- **Mathematics (n=68)**: 36%
- **Biology (n=22)**: 12%
- **Physics (n=14)**: 7%
- **Chemistry (n=10)**: 5%
- **Engineering (n=2)**: 1%
- **Geosciences (n=2)**: 1%
- **Other STEM (n=14)**: 7%
- **Other non-STEM (n=26)**: 14%
- **Education (n=1)**: 1%
- **Undeclared (n=2)**: 1%

### Classification (n=197)

- **Freshman (n=34)**: 17%
- **Sophomore (n=51)**: 26%
- **Junior (n=43)**: 21%
- **Senior (n=60)**: 17%
- **Not Reported (n=34)**: 17%

### Grade Point Average

- **MTSU**: 3.1
- **BAS**: 2.97
- **MTeach (n=159)**: 2.97

### ACT Math Average Scores

- **MTeach**: 23
- **BAS**: 20
- **MTSU**: 19

*Data for the university and the college are from the most current data available.*
Students Enrolled in Step 1 Equivalent
Overall, how satisfied are you with MTeach?

Students Enrolled in Program (excludes Step 1)
Overall, how satisfied are you with MTeach?

How did you hear about the program?

Orientation Session: 47%
Master Teacher: 25%
COE Advisor: 25%
Program Advisor: 21%
Catalog/schedule: 21%
Letter or Email: 11%
Poster/Flyer: 11%
CAS Advisor: 5%
Program Student: 5%
Website: 5%

Do you plan on teaching STEM in a middle or high school?
*STEM (Science Technology Engineering Mathematics)

I will definitely teach: 37%
I am still deciding: 42%
I will teach but not STEM: 11%
I will definitely NOT teach: 11%

*Multiple answers are allowed.
### Retention and Graduation Rates

<table>
<thead>
<tr>
<th>Program Retention</th>
<th>Program Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retention of students from Step 1 to Step 2: 52.7%</td>
<td>Projected number of graduates (Spring 2014): 6</td>
</tr>
<tr>
<td>(Students enrolled in Step 1 who subsequently enrolled in Step 2)</td>
<td>(Number of students enrolled in student teaching)</td>
</tr>
</tbody>
</table>

### Implementation Milestones

- ✓ Continue to enroll new students in program
- ✓ Program approved by State and authorized to offer STEM teaching certification
- ✓ Functional classroom, office space, and student workroom secured or being negotiated
- ✓ Steering committee meets regularly
- ✓ PEARS data submitted by established deadlines
- ✓ UTeach equivalent courses offered as recommended by the implementation schedule, program model, and/or negotiated with the Institute
- ✓ Appropriate UTeach equivalent courses listed in the Spring 2014 course schedule
- ✓ Required Instructional Program Review materials submitted by established deadlines
- ✓ Sufficient number of master teachers employed to adequately support the program
- ✓ UTeach Institute-administered student surveys completed
- ✓ Accurate financials submitted by established deadlines

**Footnote:**

- ✓ indicates that the program has fulfilled expectations for this semester/quarter.
- ✓ indicates that an adaptation exists; more time is needed to determine progress and alignment with the UTeach model and replication goals.

### MTeach School District Partners

Murfreesboro City Schools, Rutherford Country School System
University of Memphis - Tigers Teach
Progress Report - Spring 2014

Enrollment and Recruitment

Total Program Enrollment: 81 students

Program Enrollment (Number of Unique Individuals Enrolled in Tigers Teach)

The Percent of Math and Science Students Recruited into Tigers Teach

Enrollment by Tigers Teach Course, Spring 2014

Teachers Produced and Students Taught for Tigers Teach

Cumulative number of students taught is based on an assumption that 80% of program graduates who go into teaching will remain for at least five years. Totals assume teachers will teach 150 students per year.

Actual number of cumulative graduates shown through previous year. Projected number of graduates shown for subsequent years.

[STEM Pool includes Biology, Chemistry, Mathematics, Physics, Astronomy, Geosciences, Computer Science & other STEM majors]

(Fall percent recruited represents Step 1 students from the fall semester only)

Prepared by UTeach Institute
**Student Characteristics - Spring 2014**

**Ethnicity - Tigers Teach - (n=81)**

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Tigers Teach</th>
<th>University of Memphis</th>
<th>Arts and Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>African American</td>
<td>30</td>
<td>37%</td>
<td>6578</td>
</tr>
<tr>
<td>American Indian</td>
<td>n/a</td>
<td>n/a</td>
<td>42</td>
</tr>
<tr>
<td>Asian</td>
<td>4</td>
<td>5%</td>
<td>479</td>
</tr>
<tr>
<td>Hispanic</td>
<td>6</td>
<td>7%</td>
<td>583</td>
</tr>
<tr>
<td>White</td>
<td>41</td>
<td>51%</td>
<td>8774</td>
</tr>
<tr>
<td>Other</td>
<td>n/a</td>
<td>n/a</td>
<td>682</td>
</tr>
<tr>
<td>Not Reported</td>
<td>n/a</td>
<td>n/a</td>
<td>0</td>
</tr>
</tbody>
</table>

*Data for the university and the college are from the most current data available.*

**Gender Tigers Teach - (n=81)**

- Male: 31.1%, 40%, 40%
- Female: 68.9%, 60%, 60%

**Classification (n=81)**

- Freshman: 52%
- Sophomore: 27%
- Junior: 11%
- Senior: 10%

**Grade Point Average**

- Tigers Teach (n=81)
  - Tigers Teach: 2.98
  - UM: 2.8
  - AS: 2.9

**ACT Math Average Scores**

- Tigers Teach: 23
- AS: 21
- UM: 21
- Tennessee: 19

*Data for the university and the college are from the most current data available.*
Overall, how satisfied are you with Tigers Teach?

- Students Enrolled in Step 1 Equivalent
- Students Enrolled in Program (excludes Step 1)

How did you hear about the program?

- Poster/Flyer
- Letter or Email
- Program Student
- Master Teacher
- Other

Do you plan on teaching STEM in a middle or high school?

*Multiple answers are allowed.

*STEM (Science Technology Engineering Mathematics)
Retention and Graduation Rates

Program Retention | Program Graduates

Retention of students from Step 1 to Step 2: 30.8%
(Students enrolled in Step 1 who subsequently enrolled in Step 2)

Projected number of graduates (Spring 2014): 2
(Number of students enrolled in student teaching)

Implementation Milestones

- Continue to enroll new students in program
- ✓ Program approved by State and authorized to offer STEM teaching certification
- ✓ Functional classroom, office space, and student workroom secured or being negotiated
- ✓ Steering committee meets regularly
- ✓ PEARs data submitted by established deadlines
- ✓ UTeach equivalent courses offered as recommended by the implementation schedule, program model, and/or negotiated with Institute
- ✓ Appropriate UTeach equivalent courses listed in the Spring 2014 course schedule
- ✓ Required Instructional Program Review materials submitted by established deadlines
- ✓ Sufficient number of master teachers employed to adequately support the program
- ✓ UTeach Institute-administered student surveys completed
- ✓ Accurate financials submitted by established deadlines

- indicates an area in which a permanent modification exists.
✓ indicates that the program has fulfilled expectations for this semester/quarter.

Footnote: University of Memphis: The University of Memphis program staff recently confirmed that the Tigers Teach program will not be continued past the grant period. The current milestones take into account the termination of the program at the end of Spring 2014. While Tigers Teach has enrolled new students every semester, the overall program enrollment is low and has not grown sufficiently to support current course offerings. A Tigers Teach Steering Committee has been established, but it does not meet regularly. All master teachers were released at the end of the spring semester. Instructional Program Materials were submitted for Apprentice Teaching, however the submission was incomplete and the course was not reviewed. Knowing and Learning in Mathematics and Science and Perspectives on Science and Mathematics have not met requirements per the Materials Review Process.

Tigers Teach School District Partners

Memphis City Schools, Tipton County Schools, Shelby County Schools
University of Tennessee Knoxville - VolsTeach
Progress Report - Spring 2014

Enrollment and Recruitment
Total Program Enrollment: 205 students

Program Enrollment (Number of Unique Individuals Enrolled in VolsTeach)

Enrollment by VolsTeach Course, Spring 2014

The Percent of Math and Science Students Recruited into VolsTeach

Teachers Produced and Students Taught for VolsTeach

Cumulative number of students taught is based on an assumption that 80% of program graduates who go into teaching will remain for at least five years. Totals assume teachers will teach 150 students per year.

Actual number of cumulative graduates shown through previous year. Projected number of graduates shown for subsequent years.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Students Taught</td>
<td>864</td>
<td>2484</td>
<td>7095</td>
<td>14696</td>
<td>25289</td>
</tr>
<tr>
<td>Graduates (per Year)</td>
<td>8</td>
<td>7</td>
<td>28</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>Graduates (Cumulative)</td>
<td>8</td>
<td>15</td>
<td>43</td>
<td>70</td>
<td>98</td>
</tr>
</tbody>
</table>

[STEM Pool includes Biology, Chemistry, Mathematics, Physics, Astronomy, Geosciences, Computer Science & other STEM majors]

(Fall percent recruited represents Step 1 students from the fall semester only)
Ethnicity - VolsTeach - (n=205)

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>VolsTeach n</th>
<th>University of Tennessee n</th>
<th>College of Arts and Sciences n</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>15 (7%)</td>
<td>1520 (7.3%)</td>
<td>576 (8.0%)</td>
</tr>
<tr>
<td>American Indian</td>
<td>1 (1%)</td>
<td>54 (0.3%)</td>
<td>26 (0.4%)</td>
</tr>
<tr>
<td>Asian</td>
<td>9 (4%)</td>
<td>700 (3.4%)</td>
<td>231 (3.2%)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>2 (1%)</td>
<td>599 (2.9%)</td>
<td>243 (3.4%)</td>
</tr>
<tr>
<td>White</td>
<td>170 (83%)</td>
<td>16966 (81.5%)</td>
<td>5777 (80.3%)</td>
</tr>
<tr>
<td>Other</td>
<td>7 (3%)</td>
<td>990 (4.8%)</td>
<td>340 (4.7%)</td>
</tr>
<tr>
<td>Not Reported</td>
<td>1 (1%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
</tr>
</tbody>
</table>

*Data for the university and the college are from the most current data available.

Gender VolsTeach - (n=205)

<table>
<thead>
<tr>
<th>Gender</th>
<th>VolsTeach</th>
<th>UTK</th>
<th>CAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>54%</td>
<td>54%</td>
<td>51%</td>
</tr>
<tr>
<td>Female</td>
<td>45%</td>
<td>45%</td>
<td>48%</td>
</tr>
</tbody>
</table>

Majors for VolsTeach - (n=205)

- Mathematics (n=62)
- Biology (n=27)
- Chemistry (n=13)
- Physics (n=12)
- Engineering (n=11)
- Geosciences (n=4)
- Computer Science (n=1)
- Other STEM (n=10)
- Other non-STEM (n=9)
- Education (n=1)
- Undeclared (n=46)

Classification (n=205)

- Freshman (n=102)
- Sophomore (n=65)
- Junior (n=24)
- Senior (n=8)

Grade Point Average

- UTK
- CAS
- VolsTeach (n=180)

ACT Math Average Scores

- VolsTeach
- CAS
- UTK

*Data for the university and the college are from the most current data available.
Overall, how satisfied are you with VolsTeach?

- Satisfied: 64%
- Neutral: 8%
- Unsatisfied: 11%

How did you hear about the program?

- Orientation Session: 40%
- CAS Advisor: 32%
- Poster/Flyer: 25%
- COE Advisor: 16%
- Class Announcements: 16%
- Master Teacher: 10%
- Program Student: 10%
- Program Advisor: 5%

Do you plan on teaching STEM in a middle or high school?

- I will definitely teach STEM: 55%
- I am still deciding: 40%
- I will teach but not STEM: 5%
- I will definitely NOT teach STEM: 5%

*Multiple answers are allowed.
Retention and Graduation Rates

Program Retention

Retention of students from Step 1 to Step 2: 54.4% (Students enrolled in Step 1 who subsequently enrolled in Step 2)

Program Graduates

Projected number of graduates (Spring 2014): 7 (Number of students enrolled in student teaching)

Implementation Milestones

- ✓ Continue to enroll new students in program
- ✓ Program approved by State and authorized to offer STEM teaching certification
- ✓ Functional classroom, office space, and student workroom secured or being negotiated
- ✓ Steering committee meets regularly
- ✓ PEARs data submitted by established deadlines
- ✓ UTeach equivalent courses offered as recommended by the implementation schedule, program model, and/or negotiated w/ Institute
- ✓ Appropriate UTeach equivalent courses listed in the Spring 2014 course schedule
- ✓ Required Instructional Program Review materials submitted by established deadlines
- ✓ Sufficient number of master teachers employed to adequately support the program
- ✓ UTeach Institute-administered student surveys completed
- ✓ Accurate financials submitted by established deadlines

✓ indicates that the program has fulfilled expectations for this semester/quarter.

VolsTeach School District Partners

Knox County School System, Anderson County School System, Roane County School System

Prepared by UTeach Institute