

# Texas UTeach Replication Grants

Issue Date: January 20, 2009

The Texas Education Agency has allocated funding to support an upcoming round of Texas UTeach replication. The current Request for Proposal is the second competitive opportunity to apply for UTeach replication grants and is directed at Texas universities. Current Texas UTeach replication sites include *teach*Houston at the University of Houston, Teach North Texas (TNT) at the University of North Texas, and UTeach Dallas at the University of Texas at Dallas. UTeach replication at these sites is funded in part by the Texas Education Agency, the Texas High School Project, the Greater Texas Foundation, the Michael & Susan Dell Foundation, ExxonMobil, and the National Math and Science Initiative.

Universities outside of Texas may be able to take advantage of future grant opportunities and should send a statement of interest to [info@uteach-institute.org](mailto:info@uteach-institute.org). Based on available funding, the UTeach Institute plans to issue additional RFPs in the future.

## Overview of Request for Proposal

The UTeach Institute at The University of Texas at Austin seeks proposals through a competitive Request for Proposal (RFP) process from institutions of higher education located throughout Texas to implement teacher preparation programs based on UTeach. The UTeach Institute encourages Texas institutions of higher education interested in participating in this initiative to submit a preliminary proposal describing the setting at the institution of higher education and the environment in which the UTeach program will be implemented. The UTeach Institute will identify candidates that have the necessary resources to successfully implement the program and invite them to both attend the UTeach Institute Annual Conference and submit a full proposal. Finalists may be interviewed before grant awards are made. Each stage of this process and the requirements of the proposals are described in this Request for Proposal.

## Eligibility to Receive Funding

Proposals will be solicited from and submitted by fully accredited, four-year, tax-exempt institutions of higher education located in the State of Texas.

## The Proposal Process

The Request for Proposal process includes the completion of four steps:

1. All interested applicants are invited to complete a *preliminary proposal*, which provides information about the setting at the institution of higher education and the environment in which the UTeach program will be implemented, including personal statements of the project team members who will be collaborating to implement the program. The UTeach Institute

will review all preliminary proposals to determine the likelihood that the institution has the resources to successfully implement a UTeach program.

2. Selected applicants will be asked to submit a **full proposal** that describes the institution's strengths and capability for implementing the UTeach *Elements of Success* (Appendix A).
3. Universities are encouraged to attend the **UTeach Institute Annual Conference** to learn more about the UTeach program, the Request for Proposal process, and the expectations of the grant.
4. **Interviews**, conducted via telephone or during sites visits, may be conducted, as needed, before grant awards are made.

### Request for Proposal Repository

The UTeach Institute web site: <http://www.uteach-institute.org>

Microsoft Word proposal templates and forms:

<http://www.uteach-institute.org/publications>

FAQs: <http://www.uteach-institute.org/publications>

Task/Milestone	Deadline
Request for Proposals issued	January 20, 2009
Deadline for transmittal of preliminary proposal	March 13, 2009
Invitations issued to complete the full proposal	No later than May 1, 2009
UTeach Institute Conference	May 26-29, 2009
Deadline for transmittal of full proposal	July 24, 2009
Applicant interviews (as needed)	August - September, 2009
Notification of grant awards	October 9, 2009
Negotiate and finalize contract for spring 2010 planning period and fall 2010 start date	December 15, 2009
Funding for planning period released	January 15, 2010

### Grant Amounts: Up to \$1,400,000 will be awarded to each grantee

Based on available funding, the UTeach Institute will award and administer five-year grants for up to 1.4 million dollars.

Planning Period: Award range: up to \$100,000

Year 1 operations: Award range: \$100,000 - \$250,000

Year 2 operations: Award range: \$100,000 - \$350,000

Year 3 operations: Award range: \$100,000 - \$350,000

Year 4 operations: Award range: \$100,000 - \$350,000

Grant awards will be reviewed annually and are dependent on successful implementation of the UTeach *Elements of Success* (Appendix A) and the commitment and ability to become self-supporting over the course of the five-year grant period.

**Contact:** [Rfp-questions@uteach-institute.org](mailto:Rfp-questions@uteach-institute.org)

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## Background

### UTeach Program Information and History

The UTeach secondary mathematics and science teacher preparation program has been in existence since 1997 at The University of Texas at Austin. Recognizing that an essential condition for student achievement in mathematics and science is a teacher with strong content knowledge, Mary Ann Rankin, Dean of the College of Natural Sciences, made teacher preparation a strong college priority and initiated a partnership with the College of Education, the College of Liberal Arts, and the Austin Independent School District to improve the program for secondary mathematics and science teacher preparation. The University’s College of Education redesigned generic education courses to focus specifically on secondary mathematics and science teaching. The College of Liberal Arts designed a course on the philosophy and history of mathematics and science. And the College of Natural Sciences modified curricula and began aggressively recruiting mathematics and science majors to become teachers.

Hallmarks of the UTeach program include:

- Collaboration between Colleges of Sciences, Education, and Liberal Arts
- Active recruitment of science and mathematics majors to take the two initial one-hour UTeach courses free of charge
- Early and intensive field experiences

- Compact degree plans that allow most students to graduate with both a degree and teacher certification in four years
- A focus on developing deep-level understanding of the subject material and incorporating effective approaches for using technology in teaching
- Guidance and inspiration provided by faculty and highly experienced public school teachers who serve as master teachers in the program
- Courses taught by faculty who are actively engaged in research in mathematics and science as well as courses taught by faculty engaged in researching the teaching and learning of mathematics and science
- Integrated professional development courses that all focus on teaching both mathematics and science and are based on recent research in science and mathematics teaching and learning
- An array of student benefits, such as paid internships that offer opportunities for community outreach in education

From modest beginnings as a Natural Sciences pilot program of 28 students in the fall of 1997, UTeach has grown to a current enrollment of over 450 students, graduating approximately 65 certified mathematics and science teachers this past year. Between the spring of 2000 and spring 2008, a total of 491 students have graduated from the UTeach program. Of those who entered teaching five or more years ago, approximately 82% are still teaching and almost half of the graduates teach in schools in which more than 40% of the students receive free or reduced-price lunches.

### **The UTeach Institute**

The UTeach Institute (also referred to as the Institute) was created to provide direction and assistance to institutions of higher education with the startup of UTeach-based programs. The UTeach Institute offers a comprehensive set of support activities for all UTeach replication sites and provides each with 1) assistance with planning for implementation of the program; 2) access to program resources including the UTeach *Operations Manual* and UTeach curriculum and course materials; 3) guidance and technical assistance with the implementation of the UTeach *Elements of Success* (Appendix A); 4) course development, training, and consultation; and 5) evaluation and data sharing to assist grantees with keeping programs on track and achieving implementation milestones. Finally, the Institute has built and is supporting a community and network of faculty and master teachers who teach the UTeach courses to facilitate the sharing of successful practices. For more information on the UTeach Institute please visit its web site at: <http://www.uteach-institute.org>.

### **What is UTeach Replication?**

UTeach replication grants are unlike most grants in higher education. The goal of UTeach replication is to build new successful programs closely guided by the experience of UTeach. UTeach replication grants will be awarded to universities that can demonstrate clear need, and that commit to make significant changes in mathematics and science teacher preparation. In the initial phase of UTeach replication, universities awarded this grant will be expected to implement the program with fidelity to goals, core components, and curriculum. The core of the UTeach Austin program is clearly articulated in the following documents: the UTeach *Elements of Success*, the UTeach *Operations Manual*, and the UTeach program curriculum. UTeach Austin and the UTeach Institute provide technical assistance and guidance to selected universities and

view these grants as an opportunity to partner and collaborate toward innovation aimed at continuous UTeach program improvement.

### **UTeach Elements of Success**

The UTeach *Elements of Success* (Appendix A) provide an overview of the UTeach model and describe the aspects of the program that are crucial to achieving the desired results. The UTeach *Elements of Success* are specific enough to allow a university that is interested in adopting UTeach to make informed decisions about whether the program is a good fit with the university's priorities and with local characteristics.

### **UTeach Operations Manual**

More specific than the UTeach *Elements of Success*, the UTeach *Operations Manual* is a document that describes the program in sufficient detail so that institutions selected for replication are able to build on the UTeach experience and more readily implement the program without starting from scratch. The manual explains the theoretical assumptions underlying major UTeach components and provides setting. Topics addressed include obtaining institutional commitment, planning for program growth, establishing partnerships with local school districts, recruiting students, planning the budget, staffing, planning space requirements, purchasing equipment and supplies, and supporting students. The manual also includes examples of job descriptions, data collection forms, sample letters to participants, and reporting formats. The manual provides enough details about UTeach, translated into real university practices, to make program implementation a straightforward and achievable task. The UTeach *Operations Manual* is made available to all replication sites to distribute as needed on their campuses.

### **UTeach Program Curriculum**

In addition to the UTeach *Elements of Success* and the UTeach Operations Manual, replication sites are provided with the complete UTeach program curriculum. The UTeach curriculum is unique in its content emphasis and sequence. UTeach streamlines curriculum requirements by limiting the number of required education courses. The curriculum, which includes 10 courses, is disseminated to replication universities through a members-only curriculum website. See UTeach course descriptions at <http://www.uteach-institute.org/publications>.

### **Program Replication**

As defined in the *Elements of Success* (Appendix A), UTeach offers a set of operational and curricular structures that when implemented allow universities to significantly change and improve their pre-service mathematics and science teacher education programs with the goal of increasing the number and quality of mathematics and science teachers being certified. Before UTeach, The University of Texas at Austin experienced many of the problems that commonly plague universities across the country and prevent them from fully using their resources to address the nation's teacher shortages in mathematics and science. The solutions found in the UTeach program are widely applicable, and as faculty and administrators across the country learn the details of how to implement the program, they frequently turn from skeptics to enthusiasts.

The UTeach Institute has articulated a model of UTeach that provides increasing levels of specificity about the program to appeal to a variety of levels of interest and knowledge about

UTeach. As a university learns more about UTeach, it is better able to understand, adopt, and operate a UTeach-based program. In addition, this clearly expressed model of the program allows the Institute to preserve the quality of UTeach as it expands to more universities. In turn, the program's essential elements provide the basis for establishing standards against which program quality and implementation can be assessed.

### **UTeach Course Fidelity**

Replication of a university academic program presents a unique set of challenges and opportunities, but one of the most challenging is replication of the UTeach courses. An essential element of the UTeach program is the elimination of generic education courses in order to streamline certification requirements and make the curriculum more interesting and relevant to mathematics and science majors. To begin this process, replication sites are asked to adopt the UTeach curriculum provided by the Institute and implement these courses as closely as possible. The UTeach Institute understands, however, that faculty members use their own expertise, experience and insights when teaching even when following a standard syllabus or using a standard text. Indeed, UT Austin UTeach faculty continuously refine and adapt the UTeach curriculum based on experience and new knowledge of the latest research and teaching practices. This level of adaptation of the UTeach curriculum is expected to occur at replication sites as well.

Course fidelity is expected to be as high as possible initially, taking into account the unique needs of each site's state and local certification standards, student characteristics, and the personal style of the faculty member teaching the course. The Institute provides complete UTeach curriculum materials including pedagogical support elements such as instructor notes, rationales, lessons learned, recorded interviews/discussions, videotaped activities, and sample student work, in order to foster effective implementation and make replication as seamless as possible.

The UTeach Institute has built and is supporting a community and network of faculty and master teachers among the replication sites. This growing community shares knowledge about best practices in science and mathematics teacher preparation curriculum and instruction and takes advantage of the wide expertise available among its members. The UTeach Institute hosts an annual conference of UTeach replication sites, at which new ideas and course materials are shared and reviewed in a collegial atmosphere. The hope is that this process will lead to continuous improvement of the UTeach curriculum and a shared commitment to nationwide excellence in teacher preparation.

### **Replication Site Grants**

Starting a UTeach program involves designating or creating a university department or cost unit that operates the pre-service program using a combination of permanent instructional funds, grants, and private money. A university that is selected to replicate UTeach through this competitive Request for Proposal process will receive a five-year grant based on a percentage of its budget year-to-year. Grant funds are intended to support features of the UTeach program that are not normally paid for by university instructional funds. For example, UTeach grants can support master teacher salaries, mentor teacher stipends, student internships and scholarships, tuition reimbursements, faculty release, recruitment and promotional materials, and instructional

kits and materials (such as FOSS, GEMS, or STC kits). Grant awards cannot be used toward faculty salaries, facilities, facilities renovations, or large instructional technologies costing more than \$25,000.

Recipients of this grant receive it in proportion to their program size. In general, smaller programs producing fewer teachers will have smaller budgets and receive less grant money, although special circumstances such as opportunities for program growth might sometimes warrant additional investment. Grant amounts are established at a size designed to enable a new program to begin without creating dependency that might threaten continuation of the program when funding terminates. Grant percentages decrease from year after year, giving universities time to plan for program sustainability through other sources of funding. Finally, replication sites are encouraged to establish endowments to create a perpetual income stream. Money raised toward an endowment is meant to be set aside in an account to gain interest. The interest on the endowment is then used to support the program on an annual basis.

### **Planning a UTeach Program**

Laying the groundwork for a UTeach program requires support and activity at many different levels of a university. Universities applying for a UTeach replication grant engage in a substantial amount of planning and cross-college discussion. It is important to involve the university president and provost, the deans of the cooperating colleges, faculty and master teachers who will be co-teaching courses, and support staff. There should also be involvement from university development officers to raise funds for portions of the UTeach program that cannot be sustained by regular instructional or fee budgets.

Recipients of the grant will kick off the grant with an eight-month planning period to prepare for the first cohort of UTeach students to take the first UTeach course. A semester planning tool, available at <http://www.uteach-institute.org/publications>, provides an overview of the tasks that should occur during each semester of the five years of program replication.

### **UTeach Replication Already Underway**

In March 2007, the UTeach Institute, in partnership with the National Mathematics and Science Initiative (NMSI), released the first competitive Request for Proposal, encouraging interested universities to apply for grants to replicate the UTeach mathematics and science secondary teacher preparation program. A total of 52 preliminary proposals were received from institutions of higher education from across the country.

In November 2007, NMSI and the UTeach Institute selected 13 universities sites to receive grants to replicate UTeach: Florida State University; Louisiana State University; Northern Arizona University; Temple University; University of California, Berkeley; University of California, Irvine; University of Colorado at Boulder; University of Florida; University of Houston; University of Kansas; University of North Texas; University of Texas at Dallas; and Western Kentucky University. To learn more about these new and exciting UTeach programs see: [http://www.uteach-institute.org/institute\\_members/index.cfm](http://www.uteach-institute.org/institute_members/index.cfm).

Replication of UTeach in Texas is funded in part by the Texas Education Agency, the Texas High School Project, the Greater Texas Foundation, the Michael and Susan Dell Foundation, ExxonMobil, and the National Math and Science Initiative.

The Texas Education Agency has allocated funding to support an upcoming round of Texas UTeach replication. The current Request for Proposal is the second competitive opportunity and is directed at Texas universities to apply for UTeach replication grants. Universities outside of Texas may be able to take advantage of future grant opportunities and should send a statement of interest to [info@uteach-institute.org](mailto:info@uteach-institute.org). Based on available funding, the UTeach Institute plans to issue additional RFPs in the future.

## The Request for Proposal Process

<b>Preliminary Proposal Due March 13, 2009</b>	<b>UTeach Institute Conference May 26-29, 2009</b>	<b>Full Proposal Due July 24, 2009</b>
<i>All applicants submit the following:</i>	<i>University applicants will attend the conference to:</i>	<i>Selected university applicants submit the following:</i>
<ul style="list-style-type: none"> <li>• Statement of need</li> <li>• Description of the capacity to meet the need</li> <li>• Statement of interest and vision</li> <li>• Profile of partnering school district</li> <li>• Proposed staff</li> <li>• Letters of support from university administrators, deans of partnering colleges, and district partners</li> </ul>	<ul style="list-style-type: none"> <li>• Learn more about the UTeach program</li> <li>• Understand the RFP process and receive tips for submitting a successful full proposal</li> <li>• Learn more about the replication process and objectives of the grant</li> <li>• Meet individually in small group settings with UTeach faculty and staff to discuss questions about the program</li> <li>• Learn about future opportunities for consultation, training, knowledge sharing, and networking with other attendees including current UTeach replication sites</li> </ul>	<ul style="list-style-type: none"> <li>• Description of strength and capacity to implement the UTeach <i>Elements of Success</i></li> <li>• Description of institutional support</li> <li>• Memorandum of Understanding</li> <li>• Description of project leadership and staffing</li> <li>• Cost proposal</li> <li>• Letters of support from deans of partnering colleges, district officials, state and/or local stakeholders</li> <li>• Clarifications on the proposal through interviews/ conference calls with Institute staff</li> </ul>

### Eligibility Information

Proposals will be solicited from and submitted by Texas higher education institutions that are fully accredited, four-year, and tax-exempt.

### Grant Award Information

Texas institutions of higher education may apply for grants for the five-year period of 2009 through 2014 (includes a planning period plus four years of operation). The UTeach Institute anticipates that up to three (3) institutions will be selected to receive grant awards of up to 1.4 million dollars each. The actual number of grants awarded, and grant amounts, will depend upon available funding and the quality of applications received. Grant amounts will be made based on the following percentages of the operations budget (not including facilities, space rehab and instructional technology costs (e.g., laptop carts over \$25,000)). There will be no allocation for indirect costs as part of these grants.

Institute Funds	Funding Periods	% of Budget	Potential Amounts
Grant Awards	Planning Period	50%	Up to \$100,000
	Year 1 operation	60%	Up to \$250,000
	Year 2 operation	50%	Up to \$350,000
	Year 3 operation	40%	Up to \$350,000
	Year 4 operation	30%	Up to \$350,000
<b>TOTAL</b>	<b>Up to \$1,400,000</b>		

Grant estimates are made on the general assumption of a growth of at least 25 students per semester to a total of at least 200 students in the program by year 4, documenting the certification of an increased number of mathematics and science teachers per year. These assumptions may change based on the size of the institution applying.

The UTeach Institute will define the benchmarks and metrics of success and will conduct the annual reviews of each grantee site. The Institute will provide year-to-year funding to each grantee according to the original granting agreement as long as program progress is deemed satisfactory.

#### **Allowable Grant-Funded Expenses**

Funds are intended to be used towards startup costs to enable the creation of the new program and successful implementation of the UTeach *Elements of Success* (Appendix A), including (but not limited to) the hiring of master teachers, tuition stipends to recruit students, faculty release time, providing internships, and offering mentor teachers financial compensation. While such costs are considered crucial to the start-up of programs based on the UTeach model, many of them are not typically funded through budgets at institutions of higher education. The grantees will be responsible for implementing all program elements and allocating funds appropriately. Furthermore, each grantee will need to work closely with its development office to create and implement a strategy that ensures sustainability of these program elements after grant funding ends. Grant awards cannot be used toward facilities, facilities rehabilitation or large instructional technologies such as laptop carts with costs over \$25,000.

The grants will be calculated based on percentages each year (indicated above) and will be applied to the bottom line, minus the line items that are not allowable (facilities, etc). The UTeach Institute will review accounting reports describing how funds are spent during the reporting periods, as well as estimates on future budgets, which will reflect program growth.

The UTeach Institute has created a model replication operations budget (available at <http://www.uteach-institute.org/publications>), which details aspects of the program and department operations, generally based on the experience of UTeach at UT Austin. An online spreadsheet is available to prospective candidates invited to submit a full proposal and is designed to provide guidance towards creating the initial budget estimate for the planning period and helping understand how the department and budget will potentially grow over the course of the grant period. This information is useful for helping deans and provosts understand the financial commitment from their institutions. The online spreadsheet also provides the template for submitting budget information in the cost section of the full proposal.

## **Criteria for Grantee Selection**

Each *preliminary proposal* will be reviewed by a selection team to determine the suitability or fit for the UTeach program and the likelihood of successful implementation. Each *full proposal* will be reviewed to determine the capacity of the applicant university to implement the UTeach *Elements of Success* (Appendix A), its commitment to implement the UTeach program with fidelity to program structure and the published curriculum over the first four years of operation, and its potential for sustainability after grant funding ends. In reviewing the information submitted, and in recommending competitive proposals for funding, all reviewers will be guided by criteria. The criteria are listed below, in order of importance, to help applicants prioritize efforts to develop proposals.

## **Preliminary Proposal Priorities**

### **1. Level of need for the program at the institution of higher education**

A strong preliminary proposal demonstrates a compelling need for a new certification program based on UTeach. Profile information for the institution of higher education and partnering school districts will be reviewed to determine the potential impact of a new certification program based on UTeach. Preference will go toward universities that currently are producing insufficient numbers of mathematics and science teachers to meet local and state demands.

### **2. Level of capacity to address the need**

The strongest proposals will demonstrate the capacity to dramatically increase the number and quality of mathematics and science students completing degrees in their major and certification to teach these subjects at the secondary level within four years (or 120-126 credit hours). Enrollment figures will be reviewed to determine the institution's potential to certify more mathematics and science teachers. SAT/ACT scores of students majoring in mathematics and science will be reviewed to determine the potential of these students. Information about the faculty, staff, and university structure will be reviewed to understand the potential capacity to prepare strong teachers.

### **3. Strength of vision**

A strong preliminary proposal demonstrates a compelling vision for a new certification program based on UTeach. The personal statements and CVs of co-directors and other project team members should describe their vision for reforming secondary mathematics and science teacher preparation and how increasing the quality of secondary mathematics and science majors who certify to teach at the secondary level will accomplish this vision.

### **4. Strength of commitment from administrators, deans, faculty, and partnering school districts**

Applicants must have a strong commitment from top leadership to allocate resources and to support faculty and master teachers engaged in teacher education. Strong applicants will also show evidence of partnering with local schools. A Memorandum of Understanding (MOU, Appendix B) is required for applicants submitting a full proposal and includes a commitment to sustainability of the new certification program with signatures from the Deans of Education and Sciences, as well as the President or Provost. Although the completion of this memorandum is not required for the preliminary proposal, letters from administrators must acknowledge commitment to change the

current system for preparing mathematics and science teachers and state their intention to sign the MOU. This change will involve new partnerships, reorganization, restructuring curriculum, and the phasing out of any existing program. Preference will be given to institutions of higher education that have the prerequisites to implement the program successfully, such as facilities to house the program, recurring funds, faculty lines, and fundraising for the endowment.

### **5. Strength of proposed co-directors**

The strength of those chosen to champion and direct the new UTeach program is critical. At the preliminary proposal stage, preference will be given to applicants who have identified strong faculty candidates to serve as co-directors for the new program. Ideally, one co-director should come from and represent the College of Science/Mathematics (or its equivalent) and be actively engaged in scientific research in his or her discipline; the other should come from and represent the College of Education (or its equivalent) and be actively engaged in research in the learning sciences. It is important to note that the role of co-directors differs significantly from that of Principal Investigator (PI) required by more traditional grants. The roles of co-directors are described in the document titled “Role Descriptions for UTeach Faculty and Master Teachers” available at <http://www.uteach-institute.org/publications/index.cfm>.

## **Full Proposal Priorities**

### **1. Strength and capability to implement the UTeach Elements of Success**

A strong full proposal will demonstrate a thorough understanding of the UTeach program and the elements that make it successful (Please see the UTeach *Elements of Success* in Appendix A). Applicants invited to submit full proposals will have an opportunity to learn more about the program and to meet program staff and faculty at the UTeach Institute Conference in May 2009. In the full proposal, applicants must provide a description of the future program and present plans and timelines for phasing out and replacing the existing undergraduate secondary mathematics and science certification program(s), if one or more exist. The strongest proposals have strong potential for sustainability after grant funding ends and demonstrate the capacity to set in motion all the actions that will lead to a successful implementation of the UTeach certification program.

### **2. Strength of institutional support and completed Memorandum of Understanding**

A strong full proposal will present a compelling description of institutional support and cross-college collaboration for the new UTeach program. In addition, full proposals include a signed MOU (Appendix B) with commitments for ongoing support from budgets at the institution of higher education, for fundraising, and for allocating physical space for the new certification program.

### **3. Commitment of project leadership, faculty, and staffing**

A strong full proposal will identify current and potential new faculty, master teachers, and staff who are committed to implementing the UTeach program with fidelity to program structure and the published curriculum. Personal statements and CVs of proposed staff and faculty should describe a commitment for implementing UTeach with fidelity and explain how the new certification program fits within their vision for preparing mathematics and science teachers. Expectations for implementing UTeach with fidelity are articulated in the UTeach *Elements of Success* (Appendix A), the published UTeach curriculum, and role descriptions for essential UTeach faculty and staff at <http://www.uteach-institute.org/publications>.

#### 4. Strength of letters of support

A strong full proposal includes convincing letters of support from higher education administrators, local school district administrators, and other state or local stakeholders that demonstrate support and endorsement for the new certification program.

#### 5. Appropriateness of cost proposal

A strong full proposal includes a cost proposal that is reasonable and in accordance with the model replication budget (available at <http://www.uteach-institute.org/publications>). This budget provides a guide for universities to financially plan for the growth of their programs based on local resources and constraints and serves as the template for submitting budget information in the full proposal.

### Preliminary Proposal Components

The preliminary proposal should address the components listed below. The narrative (excluding the title page, table of contents, and appendices) should not exceed 15 pages, using 12-point font, one-inch margins, and single line spacing. Microsoft Word proposal templates and forms are available at <http://www.uteach-institute.org/publications>.

#### I. Title Page

Proposals must include a title page with the following information:

Institution Name and Address:							
Proposal Contacts	Name	Position	Department	Telephone	Fax	Email	Mailing Address
Co-Director (Principal Investigator)							
Co-Director (Principal Investigator)							
President or Provost (or equivalent) with authority to commit institutional resources to the proposed project							
Contracting Officer with authority to negotiate contracts for the institution							
Financial Officer with authority to produce monthly budgets and reports							
Development Officer with authority to raise money toward an endowment							
Public Relations Officer with authority to arrange press releases							

## **II. Table of Contents**

Proposals must include a “Table of Contents” and give page numbers for the major headings of the proposal (delineated by roman numerals here and in the proposal word templates). Number all pages sequentially.

## **III. Description of Applicants**

Describe your proposal development process: identify the key individuals involved and describe the role each played in the production of the proposal.

## **IV. Statement of Need for the New UTeach Secondary Mathematics and Science Preservice Program**

Provide a general description of the institution’s need for a new certification program based on the UTeach model.

## **V. Capacity to Meet the Need**

- A. Provide a general description of the project team’s capacity to meet the above need. Briefly describe how the university, faculty, and student resources have the potential capacity to increase the number and quality of mathematics and science majors graduating with degrees in their major and secondary certification to teach these subjects. Refer to the university organizational charts and key statistics included in Forms A – D below.
- B. Include, in the appendices, an organizational chart of the university that includes the equivalents of the president, CFO, Development Office, Office of Special Projects, Colleges and Schools, and the departments within each. The organizational chart for the University of Texas at Austin is available at <http://www.uteach-institute.org/publications> as an example.
- C. Submit appendices Forms A—D (Appendix C) to provide profile information on the university, colleges, the university’s teacher certification, and partnering school districts.
  - Use Form A to provide profile information about the institution.
  - Use Form B to provide profile information about the College of Science (or equivalent). If the equivalent of the College of Science is split among several colleges/schools, submit one form for each college/school.
  - Use Form C to provide profile information about the university’s secondary mathematics and science teacher certification.
  - Use Form D to provide profile information about partnering school districts.

## **VI. Statement of Interest and Vision**

Describe the project team’s vision for improving secondary mathematics and science teacher preparation and how replicating the UTeach model at their campus will support and make this vision possible.

## **VII. Proposed Staff**

Role descriptions for essential UTeach faculty and staff are available at <http://www.uteach-institute.org/publications>. Using these descriptions, applicants should identify staff and current or potential faculty and master teachers at their institutions who are being considered to implement the new certification program and teach the UTeach courses. Personal statements of up to 250 words for each identified staff and faculty member should be submitted in the text of this section describing

their personal interest and vision for the project and understanding of how UTeach replication aligns with both interest and vision. CVs should be placed in the appendices and limited to two pages each. CVs should follow the following format:

1. Education and degrees obtained
2. Academic work history/ K-12 teaching experiences
3. 5 (maximum) publications related to this project
4. 5 (maximum) significant publications
5. Synergistic activities (NSF term to describe the broader impact of an individual's professional and scholarly activities that focus on the integration and transfer of knowledge, as well as its creation)

### **VIII. Letters of Support**

- A. Provide a general description of administrative support and endorsement for the project.
- B. Submit a signed letter from the Dean of Sciences (or equivalent) acknowledging the obligation to sign and submit the UTeach Institute MOU (Appendix B) with the full proposal. NOTE: All deans that may be involved with the new certification program should submit letters. Institutions that have separate Colleges of Sciences and Liberal Arts should submit independent letters.
- C. Submit a signed letter from the Dean of Education (or equivalent) acknowledging the obligation to sign and submit the UTeach Institute MOU (Appendix B) with the full proposal.

### **IX. Appendices**

Applicants should use the appendices to submit Forms A-D, signed letters of support, the organizational chart of the university, and CVs of proposed faculty and staff.

### **Preliminary Proposal Submission Procedures**

Applicants are advised of the following submission procedures:

- Five (5) printed, paper copies and one (1) compact disc (CD) containing electronic files of the preliminary proposal must be received on or before **3:00pm Central Time on March 13, 2009**. Proposals not received by the deadline time and dates are ineligible for review.
- Proposals must be written entirely on 8.5x11 inch white paper and must be limited to 15 pages, not including title page, table of contents, and appendices. Proposals should be single-spaced and written in 12-point font type. Printed proposals should each be clipped with a binder in the top left corner.
- A CD must be submitted containing all related electronic files of the proposal. The proposal narrative must be submitted in Microsoft Word. Profile forms, letters of support, CVs, and other appendices may be submitted as Word documents or PDFs. CD files should be labeled carefully with brief titles that include the institution's name. Examples of possible file names and document names include:
  - UT Austin Preliminary Proposal
    - UT Austin Preliminary Proposal.doc
    - UT Austin Preliminary Proposal.pdf
  - UT Austin CVs (each CV should be no more than 2 pages)
    - UT Austin Marder.pdf

- UT Austin Abraham.pdf
  - UT Austin Smith.pdf
- UT Austin Appendix
  - UT Austin Letters
    - UT Austin Provost Letter.pdf
    - UT Austin Science Dean Letter.pdf
- Proposals must be submitted in a sealed envelope or box, as appropriate, with the institution’s name visible on the package. If multiple envelopes/boxes are used, the applicant should indicate on the package “*specified item # of # total items.*” Email or facsimile (FAX) transmission of proposals will not be accepted.

Proposals submitted to the UTeach Institute will not be returned. The UTeach Institute cannot assume responsibility for the confidentiality of information in submitted proposals. Therefore, proposals should not contain information that is confidential, restricted, or sensitive such as social security numbers. The UTeach Institute reserves the right to make public the proposals that receive awards, except those portions containing budgetary or personally identifiable information.

*Preliminary Proposal Submission Deadline*

Date	Time	Address/ E-mail
March 13, 2009	3:00 pm Central Time	The UTeach Institute The University of Texas at Austin, College of Natural Sciences 1 University Station – G2550 Austin, TX 78712-0549

**Checklist of Preliminary Proposal Items**

- \_\_\_ I. Title Page
- \_\_\_ II. Table of Contents
- \_\_\_ III. Description of Applicants
- \_\_\_ IV. Statement of Need
- \_\_\_ V. Capacity to Meet the Need
- \_\_\_ VI. Statement of Interest and Vision
- \_\_\_ VII. Proposed Faculty and Staff
- \_\_\_ VIII. Letters of Support
- \_\_\_ IX. Appendices
  - \_\_\_ Forms A-D
  - \_\_\_ Organizational Chart of the University
  - \_\_\_ CVs of Proposed Faculty and Staff (limit to 2 pages each)
  - \_\_\_ Signed Letters of Support
  - \_\_\_ Other Appendices
- \_\_\_ CD containing electronic versions (Microsoft Word and PDFs) of all proposal documents

**UTeach Institute Conference**

Following preliminary proposal review, the UTeach Institute will select candidate institutions that are most likely to successfully implement programs and invite them to submit a full proposal. To assist with the preparation of the full proposal, institutions are highly encouraged to attend the

conference. The goal of the Institute Conference is to provide candidates with information about the UTeach program, give specifics on program implementation, answer questions about the Request for Proposal, provide information about the replication process and expectations, and give recommendations to improve full proposals. During the conference, attendants will have multiple opportunities to ask questions and speak directly with Institute staff, UTeach administrators, faculty, and master teachers.

Date	Time	Location
May 26-29, 2009	8:00am-5:00pm	University of Texas at Austin, AT&T Conference Center

The UTeach Institute encourages the attendance of teams from each applicant institution, including deans of participating colleges, faculty members, development officers, potential master teachers, and other administrative personnel whose support will be vital for the program. Attendance at the conference is highly recommended.

### Full Proposal Components

Following success at the preliminary proposal stage and invitation to the UTeach Institute Annual Conference, the selected institutions should submit a full proposal providing satisfactory evidence of their capability to implement the types of activities described in the UTeach *Elements of Success* (Appendix A). The UTeach Institute has developed a model plan to facilitate implementation of the *Elements of Success* over the course of the grant period and will provide all replication sites with technical assistance and support in implementing each element during this time. Full proposals should demonstrate the project team’s knowledge of all the elements and describe the institution’s current capacity to implement them as well as any challenges the institution may face in the process.

In addition, full proposals require the submission of CVs of proposed faculty, master teachers, and staff, budget forecasts (using the budget template described below), and letters of support. At this stage of the Request for Proposal process, applicants will be required to submit a signed MOU (Appendix B) with commitments to provide ongoing support from institution budgets, to fundraise, to allocate physical space for the new certification program, and to phase out existing undergraduate programs. A semester planning tool and the required model replication budget template (available at <http://www.uteach-institute.org/publications>) are provided as resources for developing this section of the proposal.

The full proposal should address the components listed below. The narrative (excluding the title page, table of contents, and appendices) should not exceed 20 pages, using 12-point font type, one-inch margins, single line spacing. Microsoft Word proposal templates and forms are available at <http://www.uteach-institute.org/publications>.

#### I. Title Page

Proposals must include a title page the following information:

Institution Name and Address:							
Proposal Contacts	Name	Position	Department	Telephone	Fax	Email	Mailing Address
<b>Co-Director (Principal Investigator)</b>							
<b>Co-Director (Principal Investigator)</b>							
<b>President or Provost</b> (or equivalent) with authority to commit institutional resources to the proposed project							
<b>Contracting Officer</b> with authority to negotiate contracts for the institution							
<b>Financial Officer</b> with authority to produce monthly budgets and reports							
<b>Development Officer</b> with authority to raise money toward an endowment							
<b>Public Relations Officer</b> with authority to arrange press releases							

## II. Table of Contents

Proposals must include a “Table of Contents” and give page numbers for the major headings of the proposal (delineated by roman numerals here and in the proposal word templates). Number all pages sequentially.

## III. Description of Applicants

Describe your proposal development process: identify the key individuals involved, and describe the role each played in the production of the proposal.

## IV. UTeach Elements of Success

In this section, applicants demonstrate their strength and capacity to implement the UTeach *Elements of Success* (Appendix A). Please respond to the following:

### *Create an Organization Devoted to Preparing Teachers*

- A. Provide the proposed name and/or logo, if designed or developed, of the proposed certification program.
- B. Describe the organizational structure of the new certification program and how it will fit within the overall structure of the university. In addition, applicants must submit an organizational chart of the program showing how it fits within the university structure

and with district partners. The program's organizational chart may be placed in the appendices. See the UTeach Austin organizational chart at <http://www.uteach-institute.org/publications> for an example.

- C. Describe plans for phasing out and replacing the existing undergraduate, secondary mathematics and science teacher certification program(s), if one or more exists at your institution and any challenges or barriers your institution may face during this process. Selected universities with existing undergraduate, secondary mathematics and science teacher certification programs will have several years to phase out and replace them with the UTeach model. Plans should include a timeline with clear dates to begin phasing out the old program.
- D. Describe any existing resources at your university for the creation of promotional materials, fundraising, and recruitment of new students.

#### *Develop Institutional Support*

- E. Applicants should describe the institutional support for the new program. In addition, applicants submit a signed MOU (Appendix B) with commitments to provide ongoing support from institution budgets, to fundraise, and to allocate physical space for specialized classrooms, offices, and student work-spaces for the new certification program. The MOU should be submitted in the appendices.
- F. Describe the planned partnership between all participating colleges and other programs these colleges have collaborated on previously.
- G. Describe development (fundraising) capacity, including ideas and plans for raising private dollars toward an endowment to sustain the program after the grant ends.
- H. Describe current and potential physical space for the new program including office space for instructors and staff and appropriate classroom and laboratory space for teaching program courses. Indicate whether the space will be dedicated to the program or shared space.

#### *Attract and Retain Students*

- I. Describe ideas and plans for recruiting undergraduate mathematics, science, and computer science majors into the new certification program. When possible, cite evidence that undergraduate students majoring in mathematics and science are interested in teaching (e.g., survey results, focus group comments).
- J. Describe plans for retaining students in the program including scholarship support, internships, advising, and guidance by faculty and staff.

#### *Implement an Instructional Program*

- K. Outline the steps for revising and approving new four-year (or 120—126 credit hour) degree plans that incorporate the UTeach courses and field experiences. Include a timeline for obtaining state approval for the new certification program and expected dates for the program's publication in the course catalog.
- L. Identify and describe any state policies that may present obstacles or barriers to implementing the new certification program at your university (e.g., state requirements for field experience hours, mandatory pre-requisite courses, etc.). Describe how your institution will work with the state department of education to obtain waivers or change policies.

- M. Identify and describe the types of school and classroom settings in the partner school districts in which program students will teach lessons during field experiences associated with the UTeach courses. Identify schools in the partner school districts that utilize project-based instruction (e.g., New Tech high schools).

*Provide First-Rate Instruction*

- N. Describe the project team's interest and vision for improving mathematics and science education and how the replication of a UTeach model will support this vision. **Note: This vision should be a refinement of the vision statement submitted in the preliminary proposal.**
- O. Provide personal statements from each project team member describing his/her interest and vision for improving mathematics and science education and how the replication of a UTeach model will support this vision. Personal statements should be included in the text of the proposal and address each person's unique qualifications and how he/she will contribute to the preparation of the teacher graduates of the new program. Please limit personal statements to 250 words. **Note: The personal statements should be updated from those submitted earlier in the preliminary proposal. Include additional statements for new faculty or staff who have contributed to the proposal preparation since the preliminary proposal.**
- P. Submit CVs for each person in the appendices. Please limit CVs to two pages. CVs should follow the below format:
1. Education and degrees obtained
  2. Academic work history/ K-12 teaching experience
  3. 5 (maximum) publications related to this project
  4. 5 (maximum) significant publications
  5. Synergistic activities
- Note: Reviewers of the full proposal will not have access to CVs submitted in the preliminary proposal. Any CV submitted with the preliminary proposal must be resubmitted with the final proposal.**

*Strive for Continuous Program Improvement*

- Q. Describe the project team's ability to collect and share data around program effectiveness, teacher certification, teacher quality, and student achievement. Please indicate those team members that will be involved with collecting and sharing data.

**V. Cost Proposal**

In this section, provide a summary of the budget, the model replication budget template/spreadsheet, and any explanatory information needed. Applicants must submit a budget detailing anticipated costs necessary for implementing the UTeach *Elements of Success* using the model budget as a guide and template (available at <http://www.uteach-institute.org/publications>).

- Budget forecast based on anticipated growth should include estimated costs for the planning period and first four years of operation.
- Budgets should also include annual travel expenses for an average of 10-15 faculty and staff to attend 3-5 workshops and trainings each year at The University of Texas at Austin for the first three years of the grant.

- Grants will be made on a percentage of each year's budget, as specified in the Grant Award Information section of this Request for Proposal. Facilities, space rehabilitation, and classroom technologies such as laptop carts over \$25,000 must be indicated in the budget but will not be included in the grant budget percentage. There will be no allocation for indirect costs as part of these grants.

## VI. Appendices

Applicants should use the appendices to submit the program's organizational chart, signed letters of support, and CVs of project faculty and staff.

Applicants are required to submit signed letters of support for implementing the new program. The letters should be submitted in the appendices and should come from the following:

- Deans from all participating colleges and schools in the program partnership. Letters should convey the Deans' interest in this program and the university's commitment to provide institution budgets, to fundraise, and to allocate physical space for the new certification program. Note: Institutions with separate Colleges of Sciences and Liberal Arts should submit independent letters.
- Local school district administrators who will partner with the institution for field experiences and provide mentor teachers.
- And, as needed, other state or local stakeholders (e.g., state officials, school board members, parents) to further demonstrate support and need for the new program.

## Full Proposal Submission Procedures

Applicants are advised of the following submission procedures:

- Five (5) printed, paper copies and one (1) compact disc (CD) containing electronic files of the preliminary proposal must be received on or before **3:00 pm Central Time on July 24, 2009**. Proposals not received by the deadline time and dates are ineligible for review.
- Proposals must be written entirely on 8.5x11 inch white paper and must be limited to 20 pages, not including appendices. Proposals should be single-spaced and written in 12-point, Times font type. Printed proposals should each be clipped with a binder in the top left corner.
- A CD must be submitted containing all related electronic files of the proposal. The proposal narrative must be submitted in Microsoft Word. Organizational charts, letters of support, CVs, and other appendices may be submitted as Word documents or PDFs. CD files should be labeled carefully with brief titles that include the applicant's name. Examples of possible file names and document names include:
  - UT Austin Full Proposal
    - UT Austin Full Proposal.doc
    - UT Austin Full Proposal.pdf
  - UT Austin Appendix
    - UT Austin MOU
    - UT Austin Letters
      - UT Austin Provost Letter.pdf
      - UT Austin Science Dean Letter.pdf
    - UT Austin CVs (each CV should be no more than 1 page)
      - UT Austin Marder.pdf

- UT Austin Abraham.pdf
  - UT Austin Smith.pdf
- Proposals must be submitted in a sealed envelope or box, as appropriate, with the applicant university’s name visible on the envelope/package. If multiple envelopes/boxes are used, the applicant should indicate on the package “*specified item # of # total items.*” Email or facsimile (FAX) transmission of proposals will not be accepted.

Proposals submitted to the UTeach Institute will not be returned. The UTeach Institute cannot assume responsibility for the confidentiality of information in submitted proposals. Therefore, proposals should not contain information that is confidential, restricted, or sensitive such as social security numbers. The UTeach Institute reserves the right to make public the proposals that receive awards, except those portions containing budgetary or personally identifiable information.

*Full Proposal Deadline*

Date	Time	Address/ E-mail
July 24, 2009	3:00 pm Central Time	The UTeach Institute The University of Texas at Austin College of Natural Sciences 1 University Station – G2550 Austin, TX 78712-0549

**Checklist of Full Proposal Items**

- \_\_\_ I. Title page
- \_\_\_ II. Table of Contents
- \_\_\_ III. Description of Applicants
- \_\_\_ IV. UTeach *Elements of Success*
- \_\_\_ V. Cost Proposal
- \_\_\_ VI. Appendices
  - \_\_\_ Program’s organizational chart
  - \_\_\_ CVs of proposed faculty and staff (limit to 2 pages each)
  - \_\_\_ Letters of support
  - \_\_\_ Signed Memorandum of Understanding
  - \_\_\_ CD containing electronic versions (Microsoft Word and PDFs) of all above proposal documents

**UTeach Institute Support to Applicants**

Please send questions about this Request for Proposal to [Rfp-questions@uteach-institute.org](mailto:Rfp-questions@uteach-institute.org)

Information that is different from or in addition to the information available in the Request for Proposal will be provided in response to written inquiries. In order to assure that all prospective applicants have equal access to information about the Request for Proposal, copies of all such inquiries and their written answers will be posted on the UTeach Institute web site <http://www.uteach-institute.org>. These questions and their responses will be updated as needed on a regular basis while the Request for Proposal is advertised.

In addition, the UTeach Institute will schedule conference calls during certain periods for teams to discuss issues related to the Request for Proposal process. Please see <http://www.uteach-institute.org> for a schedule including dates and times for these conference calls. During these conference telephone calls, the UTeach Institute will answer questions about the Request for Proposal, listen to concerns or issues, and provide solutions when possible. Any pertinent information discussed during these calls that is helpful to other applicants will be posted on the UTeach Institute web site.

## **Proposal Review and Award Information**

Preliminary and full proposals received by the established deadline date and time will be reviewed by a Selection and Review Committee consisting of the UTeach Institute staff, UTeach administrators and faculty, and selected individuals. Review of proposals will begin as soon as practical after receipt. All components of an application must be addressed to be considered for funding.

### **Criteria for Reviewing Proposals**

The Selection and Review Committee will be asked to formulate a recommendation either to support or decline each proposal. The UTeach Institute will consider the advice of the reviewers and formulate a recommendation. Decisions regarding preliminary proposals and invitations to attend the UTeach Institute Annual Conference and to submit full proposals are expected to be announced no later than **May 1, 2009**. Reviewers' recommendations regarding full proposals and announcement of the institutions selected for UTeach replication is expected to occur by **October 9, 2009**.

### **Data Submission, Grant Reporting, and Payment Schedule**

Upon execution of the grant agreement, the Institute will award the grant funds to the replication site. Grant funds for subsequent years will be distributed based on the completion of annual statements of work, which define specific tasks and benchmarks for program implementation.

Replication sites submit archival program and participant data through the Progress Evaluation and Reporting System (PEARS), a data management system which houses university and program profile information including aggregate student data (e.g., race/ethnicity, gender, socioeconomic status) and data about individual student participants (e.g., GPA, SAT, or ACT scores, program coursework completed).

In addition to PEARS data, replication sites assist the Institute in gathering survey data including:

- Entry survey responses
- Mid-term course survey responses
- Exit survey responses
- Graduate survey responses
- Alumni survey responses

Data submissions will occur in cycles each year. On a bi-annual basis, the UTeach Institute uses this data to prepare detailed progress reports indicating whether the site is successfully meeting benchmarks associated with implementing the UTeach *Elements of Success* over the course of the grant period and achieving the desired results.

Institute staff will conduct periodic visits during each project year to determine levels of success and determine where support will be most leveraged. Such visits will involve observations, interviews, and other data collection activities. Year-to-year funding at each institution will continue according to the original granting agreement as long as the UTeach Institute deems program progress satisfactory.

The UTeach Institute anticipates that up to three (3) institutions will be selected to receive grant awards for up to \$1.4 million, ranging from \$100,000 to \$350,000 each year for the school years of **2009-2010** (planning period), **2010-2011** (Year 1 implementation), **2011-2012** (Year 2 implementation), **2012-2013** (Year 3 implementation), and **2013-2014** (Year 4 implementation). The actual number of awards and the award sizes are subject to availability of funds and the quality of proposals received. Awards will be made according to the following schedule:

<b>Grant Year</b>	<b>Period</b>	<b>Award Amounts</b>
Planning Period	January 15, 2010 through August 31, 2010	Up to \$100,000
Year 1 Operations	September 1, 2010 through August 31, 2011	Up to \$250,000
Year 2 Operations	September 1, 2011 through August 31, 2012	Up to \$350,000
Year 3 Operations	September 1, 2012 through August 31, 2013	Up to \$350,000
Year 4 Operations	September 1, 2013 through August 31, 2014	Up to \$350,000

## Appendices

- A. UTeach *Elements of Success*
- B. Memorandum of Understanding (MOU) Template
- C. Data Profile Forms (A-D)

## A. UTeach Elements of Success

### Hallmarks of the UTeach Program

*UTeach's mission is to recruit, prepare, and retain qualified science, mathematics, and computer science teachers. The program serves this mission by providing full teaching certification for undergraduate majors obtaining mathematics, science, and computer science degrees without adding to the time or cost of their degree. There are many elements that have contributed to the success of UTeach. However, the hallmarks of the UTeach program include:*

- Collaboration between Colleges of Sciences, Education, and Liberal Arts
- Active recruitment of science and mathematics majors to take the two initial one-hour UTeach courses free of charge
- Early and intensive field experiences throughout the program
- Compact degree plans that allow most students to graduate with a degree and certification in four years
- A focus on developing deep-level understanding of the subject material and incorporating effective approaches using technology in teaching
- Guidance and inspiration provided by faculty and highly experienced public school teachers who serve as Master Teachers in the program
- Courses taught by faculty who are actively engaged in research in mathematics and science and in the teaching and learning of mathematics and science
- Integrated professional development courses that all focus on teaching both mathematics and science, and are based on recent research in science and mathematics teaching and learning
- An array of student benefits, including paid internships that offer opportunities for community outreach in education

### UTeach Components

*The following components of the UTeach program incorporate and build upon the program's hallmarks, and have all contributed to the success of the program.*

#### *Create an Organization Devoted to Preparing Teachers*

##### **Create an identity**

- UTeach is an **academic program** that functions as a department and is responsible for the preparation of mathematics, science, and computer science teachers.
- UTeach has a **prestigious identity** that attracts both high-caliber students to enroll in the program and research faculty who want to reform mathematics and science education.
- There are **no other competing undergraduate certification programs** at the university in the disciplines in which UTeach offers secondary certification.
- A UTeach **website** provides ready access to program reports, course offerings, news, research results, and other items appropriate for Internet distribution.

## **Work collaboratively**

- UTeach is a joint effort of the college administering teacher certification and colleges responsible for mathematics, science, and computer science majors. UTeach has co-directors; one representing mathematics, science, and computer sciences and one representing education. The co-directors and a steering committee, made up of faculty and staff in both colleges, meet regularly to handle student affairs and to develop consensus on instructional and policy decisions.
- Close partnership with one or more school districts is essential for the proper operation of UTeach and its field experiences. The relationship with school districts includes frequent communication with district officials, principals, and teachers concerning placement of students and the nature of their field experiences. All public school teachers mentoring UTeach students are paid for their efforts as a UTeach mentor teacher.

## **Develop Institutional Support**

### *Cultivate continuing top-level support*

- UTeach relies on active support from university officials and administrators including the University President, Provost, Deans of Science and Education, and other relevant administrators.

### *Provide for sustainability*

- UTeach faculty, Master Teachers, advisers, and support staff are paid from the recurring university budget. Thus, when starting UTeach, university officials agree to create a new unit on the scale of a small department.
- Program elements that cannot be supported from customary instructional funds are supported by private sources including foundations, corporations, and individual donations. These elements may include tuition reimbursement for introductory courses, funds for UTeach internships, student scholarships, payments to mentor teachers in the field, and support for UTeach graduates after they have left the university. Support and commitment from Deans is required for development officers in cooperation with program directors to obtain gift funds. Ideally these funds are established as endowments to provide sustained support.
- Instructors and staff apply for and administer competitive state and national grants and other awards to provide additional support.

### *Secure space*

- UTeach has office space for instructors and staff, and appropriate classroom and laboratory space to teach its students. Ideally, the space is contiguous (e.g., a block of rooms with access to storage space for equipment and materials) and located within a College of Sciences.

### *Hire support staff*

- UTeach employs support staff needed to make appointments, to arrange travel and professional services, to purchase and manage equipment, to schedule classes, and to manage the logistics of working with a substantial number of mentor teachers for the student field experiences and internships.

## **Attract and Retain Students**

### *Engage in active recruitment*

- All students in the College of Sciences are invited to join UTeach. The program uses a variety of communication methods to reach a broad group of potential teachers.
- Students are provided with a tuition stipend for the first two one-hour courses so that they can explore teaching at no financial cost to themselves.
- Every attempt is made to ensure a positive initial teaching experience in Step 1 in order to encourage students to continue in the program.

### *Provide financial support*

- UTeach students have access to a wide range of financial support including tuition stipends, and internships, which are paid jobs that enable students to work in nonprofit educational activities such as after-school tutoring, museums, or curriculum development. It is highly desirable to obtain additional forms of scholarship support from private funding sources.

### *Provide guidance and support*

- UTeach employs its own advising staff. UTeach advisors are supportive of the decision to pursue a teaching career, are well informed about the wide variety of degree plans leading to certification, and help pre-service teachers navigate their complex degree requirements. At least one advisor per 250 students is preferred.
- There is an “open door” policy in offices shared by Master Teachers; students have access to guidance and support offered by all Master Teachers who are available when not teaching courses or supervising field experiences.

### *Build community*

- Students have a dedicated study area and meeting space near classrooms that provides computers, curriculum resources, and the opportunity to work collaboratively with each other on projects or with study groups over extended hours.
- Students have a voice in UTeach through a student organization. The UTeach advising staff regularly schedules activities and events designed to build a sense of identity and camaraderie among UTeach students and provide a forum to voice opinions in the presence of program decision makers.

### *Honor students who choose to teach*

- UTeach regards the preparation of public school science and mathematics teachers as an essential part of the mission of the university. Students who choose this career deserve recognition that the university values the service they will provide in the schools. Recognition can be expressed by special mention at graduation, celebration dinners, opportunities to meet university administrators, program directors and supporters, and press coverage.

### *Support teachers after graduation*

- UTeach provides graduates induction support into the teaching profession in order to enhance retention and professional development through activities such as an online mentoring program, advice, classroom visits, a lending library of materials and equipment, regularly scheduled professional development sessions at the university and elsewhere, as well as the opportunity to obtain advanced degrees.

### **Create an Instructional Program**

#### *Offer 4-year degree plans for all teacher certifications in mathematics, science, and computer science*

- UTeach degree plans exist for specialists in science, mathematics, and computer science so that a student can realistically complete secondary teacher certification in four years along with a degree in mathematics, science, or computer science.
- UTeach degree plans are coordinated with state and national standards for teacher preparation in each discipline, including both process skills and content items. All the teacher competencies required by the State, and assessed by the portfolio and final observation, are encompassed during the UTeach course sequence.

#### *Incorporate early and continuous field experiences*

- Starting in their first semester of the program, UTeach students participate in carefully supervised field experiences in public school upper elementary classrooms where they teach a minimum of three times using research-based instructional materials to determine if teaching is a suitable profession for them.
- Throughout the course sequence, students experience a variety of field experiences and are supervised by the Master Teachers, with an emphasis on teaching in high-need schools (50% or more of students on free or reduced lunch) in elementary, middle, and high school settings in order to understand the cultural and emotional development of students in high-need schools.
- UTeach students receive detailed written commentary on their teaching from mentor teachers in the field, and whenever possible, from course instructors and Master Teachers. Lessons may be videotaped to provide opportunities for further analysis and reflection.

#### *Create effective, streamlined, flexible course sequences*

- All courses in the UTeach professional development sequence are specifically designed for the needs of future secondary teachers of science, mathematics, and computer science and is domain specific. Generic education courses do not exist in the course sequence.
- The UTeach course sequence integrates themes important to mathematics, science, and computer science education including technology, equity, assessment, and how students learn mathematics and science.
- UTeach streamlines curriculum requirements by limiting the number of required education courses and by eliminating a small number of upper-division content courses. Many UTeach degree plans require greater breadth in mathematics and science than traditional degree plans in order to comply with State standards. It is possible to take an additional course simultaneously with Student Teaching.

- UTeach has provisions for flexible program entry, which in some cases can even provide for program completion in the equivalent of three academic semesters. Provisions for post-baccalaureate admission are highly desirable.

### **Provide First-rate Instruction**

#### *Assign and hire course instructors*

- Faculty in the College of Education have expertise in how students learn mathematics and science, assessment, instructional methods, and pedagogical content knowledge which enables the creation, implementation, and continuous improvement of state of the art professional development courses for UTeach. It may be necessary to hire new faculty to cover all instructional needs.
- Faculty and instructors in the College of Sciences and the College of Education teach subject content courses such as “Functions and Modeling” and “Research Methods” to provide content knowledge particularly needed by teachers. It may be necessary to hire new faculty to cover all instructional needs.

#### *Employ Master Teachers*

- UTeach employs Master Teachers on the instructional budget to supervise field experiences and teach courses in the program. A Master Teacher is a non-tenured faculty member who has experienced years of successful teaching, is widely recognized for his or her educational leadership, and has a minimum of a Master’s Degree, and experience in and passion for training other teachers. Master Teachers are tremendous examples and guides, they are knowledgeable about what new teachers really face and need, and they are indispensable in providing connections with local school district teachers and administrators.
- Master Teachers teach field-based courses and coordinate field placements associated with each UTeach course so the faculty can also focus on other commitments such as teaching, conducting research, publishing, and earning tenure.
- There should be at least one Master Teacher for each 100 students in the program; however, one Master Teacher to 50 students is preferable. The number of students in the program is defined as the numbers that have taken a course specifically required for UTeach certification in the last two long semesters or last three quarters.
- Master Teachers demonstrate mastery of content and pedagogical content knowledge, as evidenced by a proven record demonstrating the ability to teach effectively using a variety of instructional strategies.
- Master Teachers are deeply committed to the success of implementing and maintaining a quality teacher-preparation program. A Master Teacher serves students formally and informally as needed to increase the likelihood of successful teaching experiences.

#### *Employ Mentor Teachers*

- UTeach employs Mentor Teachers, practicing teachers who work closely with UTeach students in their field placements. Mentor Teachers create safe and supportive environments for UTeach students who are assigned to teach in their classrooms. They review lesson plans and observe and coach the novice teachers.

- Mentor Teachers receive a stipend for their work with the UTeach students. The stipend amount depends on the extent of the teacher's involvement in different courses and is provided after the completion of an evaluation of the student's teaching.

#### *Develop best teaching practices*

- UTeach courses emphasize the importance of engaging students in learning science, mathematics, and computer science by using multiple teaching methods.
- Course instructors, Master Teachers, and mentor teachers review and provide feedback for carefully prepared, formatted lesson plans taught by UTeach students in the field prior to delivery. Expectations about student lesson plans are standardized throughout the program.
- UTeach students experience the process by which scientists and mathematicians arrive at new knowledge and methods. It is desirable to create new courses in the College of Sciences or modify existing courses so that students have a research experience to expose them to this process.
- UTeach students learn to use a variety of student assessments to modify and improve classroom instruction.

#### *Model best teaching practices*

- Master Teachers and faculty who teach the UTeach students model best teaching practices.
- The bulk of UTeach students' education occurs in classes taught by regular faculty in the College of Sciences and elsewhere. It is desirable that UTeach students be exposed to the best examples of conventional teaching as well as innovative instruction whenever possible.
- UTeach students acquire skills with instructional technology through experiences woven throughout the UTeach courses. The spectrum of technologies ranges from word processing and spreadsheets to digital data collection and mathematical modeling and simulation.
- UTeach courses emphasize the connections between the sciences and between mathematics and the sciences. UTeach students receive instruction on the history and philosophy of mathematics and science.

### **Strive for Continuous Program Improvement**

#### *Review courses*

- The UTeach courses and curriculum are reviewed on an ongoing basis. This review ensures course alignment, minimizes redundant assignments, identifies gaps, and ensures compliance with state requirements and national guidelines.
- To maintain a leading edge in instruction, pedagogical courses are often updated according to current learning research.

#### *Assess students*

- UTeach students are assessed in all their courses through assignments and exams.

- Grade point averages, grades in relevant content classes, and grades in professional development classes, are factors used to assess whether a student is recommended for certification.
- UTeach students are evaluated on the lessons they teach in public schools. In courses with field experiences, sufficiently poor performance during teaching can result in failing the course.
- UTeach students complete a teaching portfolio, a final document of their accomplishments aligned with the State standards and additional UTeach program requirements.
- Student assessments include a final evaluation of their teaching proficiency based on their classroom performance that involves multiple trained observers using a tool like the UTeach “Teacher Development Rubric” (TDR).

#### *Collect Program Data*

- Students provide feedback for UTeach classes through entry surveys, mid-semester evaluations, and course instructor surveys at the end of each semester. When students graduate from UTeach they have the opportunity to complete an evaluation of the UTeach program and their university experience.
- UTeach systematically gathers and reports data on the characteristics of its students and graduates, including numbers of students, grade point average distributions, demographic information, graduation rates, and retention rates in teaching.
- Master teachers and advisors contact all students who did not take a UTeach course for one semester to find out if they are still in the program in an effort to obtain dropout data. If students state that they dropped out, they are asked to share their reasons.
- An end-of-year report is prepared each year by a program evaluator to summarize outcomes related to the new certification program.
- The UTeach program uses data collected from students and graduates to continuously improve the program.

## **B. Memorandum of Understanding between (University) and the UTeach Institute at The University of Texas at Austin**

### **UTeach Elements of Success and Program Curriculum**

It is understood that success of the (Program Title) program depends on careful attention to the UTeach *Elements of Success* and program curriculum. Every effort will be made to ensure that the program is implemented with fidelity to the UTeach *Elements of Success* and program curriculum.

### **University Contribution to Funding**

It is understood that the funding provided is for getting the (Program Title) program off the ground. By accepting these funds, (University) understands it is obligated to provide recurring institutional funding as detailed in the attached budget proposal. The UTeach Institute reserve the right to discontinue grant awards if (University) fails to make adequate progress in implementing the UTeach *Elements of Success*.

### **Faculty and Staff Lines**

Courses and activities of UTeach will be offered by tenured and tenure-track faculty, master teachers and staff at the University. By the end of the funding period, the university will ensure that sufficient personnel are on permanent budget in each of these categories to guarantee the continued success of the program.

It is understood that faculty responsible for the program will be actively engaged in basic research in math or science and in the teaching and learning of math or science. This may necessitate new faculty hires including provision of adequate start-up packages, and sufficient release time for course development.

### **Physical Space**

(University) will provide adequate, preferably contiguous and located within a department of mathematics or science, space for the support and administration of the (Program Title) program. The space will include offices for permanent personnel as well as suitable classroom, laboratory, and storage space for instructional purposes. These allocations will be reviewed and adjusted as program needs expand.

### **Recommendation for Certification**

(University) will ensure that students who satisfactorily complete the (Program Title) program will be recommended by (University) for State educator/teacher certification in accordance with state and local regulations.

### **Reports and Data Submissions**

It is understood that bi-annual progress reports and annual evaluation reports will be submitted to the Institute as outlined in the attached proposal. In addition, (University) will provide program-level and student-level data via the UTeach Institute data collection and evaluation system.

**Development Efforts**

It is understood that the sustainability of the (Program Title) program will depend on recurring institutional funding. Depending on available institutional resources, every effort will be made to ensure sustainability through a well-focused fund-raising program to secure a permanent endowment to support (Program Title).

**Signatures**

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Principal Investigator at (University)

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Dean of Science or equivalent at (University)

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Dean of Education or equivalent at (University)

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Chief Academic Officer at (University)

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UTeach Institute representative

## C. Profile Data Forms

### FORM A: UNIVERSITY PROFILE INFORMATION

Name and Address of the University:			
2008 Student Demographics			
			Undergraduate Number
Number of undergraduate students enrolled in the university Fall 2008			
Number of undergraduate students graduating Spring 2008			
			Number
			Percentage
Gender of undergraduates, Fall 2008	Female		
	Male		
Ethnicity of undergraduates, Fall 2008	African American		
	American Indian		
	Asian		
	Hispanic		
	White		
	Other		

Math Scores for all undergraduates enrolled in the university Fall 2008							
SAT Math	Score	Number	Percentage	ACT Math	Score	Number	Percentage
	701-800				30-36		
	601-700				20-29		
	501-600				10-19		
	200-500				0-9		
Total		100%	Total		100%		
Average Undergraduate SAT Math Score				Average Undergraduate ACT Math Score			

Fall 2008 number of faculty and staff at the university	
	Total
Number Faculty	
Number Staff	

**FORM B: COLLEGE OF SCIENCE (OR EQUIVALENT) PROFILE INFORMATION**

Use Form B to provide profile information about the College of Science (or equivalent). If the equivalent of the College of Science is split among several colleges/schools, submit one form for each college/school.

Name of the College:			
2008 Science, Math, Computer Science Undergraduate Majors Demographics			
	Computer Science	Math	Science
Number of undergraduate students enrolled in college, Fall 2008			
Number of undergraduate students graduating from college, Spring 2008			
		Number	Percentage
Gender of undergraduate science, math, computer science majors combined, Fall 2008	Female		
	Male		
Ethnicity of undergraduate science, math, computer science majors combined, Fall 2008	African American		
	American Indian		
	Asian		
	Hispanic		
	White		
	Other		

Math scores for all undergraduate science, math, and computer science majors enrolled Fall 2008							
SAT Math	Score	Number	Percentage	ACT Math	Score	Number	Percentage
	701-800				30-36		
	601-700				20-29		
	501-600				10-19		
	200-500				0-9		
	Total		100%		Total		100%
Average Undergraduate SAT Math Score				Average Undergraduate ACT Math Score			
Average Undergraduate SAT Math Score for University				Average Undergraduate ACT Math Score for University			

Fall 2008 Number of Faculty and Staff in the college	
	Total
Number Faculty	
Number Staff	

**FORM C: Secondary Math and Science Teacher Certification Information**

In this section, provide information about the existing pathways at the university to certify secondary teachers in math, science, and technology.

What undergraduates degree(s) are offered for students seeking secondary math and science certification obtain?

	BA/BS degree in a math/science content (biology, chemistry, physics, geology, math)
	BA/BS degree in education
	Dual BA/BS degrees in math/science content <i>AND</i> education
	Other

University teacher production of secondary math and science teachers				
Certification Type	Number of Undergraduates Certified in Secondary Math and Science Each School Year		Number of Postbacs Certified in Secondary Math and Science Each School Year	
	2006-2007	2007-2008	2006-2007	2007-2008
Secondary Mathematics				
Secondary Biology				
Secondary Chemistry				
Secondary Physics				
Secondary Earth Science				
Secondary Composite Science				
TOTAL Secondary Science (combined)				
Secondary Computer Science/ Technology (or equivalent)				
Other Secondary Math/Science (e.g., math/physics/engineering certification)				
TOTAL Undergraduate Secondary Math and Science Certifications				

Please indicate if the following certification programs are available at your university for students seeking science, mathematics, and computer science certification (add additional rows as needed). For each certification program, please indicate how many credit hours are required to complete the major with certification.

	Grade Level	Certification name	Is program offered? Yes (Y) No (N)	Number of credit hours in math or science	Number of credit hours of teacher education (pedagogy) courses	Total credit hours to complete major with certification
1	4 - 8	Mathematics				
2	4 - 8	Mathematics/Science				
3	4 - 8	Science				
4	6 - 12	Secondary Biology				
5	6 - 12	Secondary Chemistry				
6	6 - 12	Secondary Processing Technologies I				
7	6 - 12	Secondary Computer Information Systems				
8	6 - 12	Secondary Earth Sciences				
9	6 - 12	Secondary Life-Earth Science				
10	6 - 12	Secondary Mathematics				
11	6 - 12	Secondary Physical Science				
12	6 - 12	Secondary Science Composite				
13	6 - 12	Secondary Physics				
14	8 - 12	Chemistry				
15	8 - 12	Computer Science				
16	8 - 12	Life Science				
17	8 - 12	Mathematics				
18	8 - 12	Physical Science/Mathematics/Engineering				
19	8 - 12	Physical Sciences				
20	8 - 12	Physics/Mathematics				
21	8 - 12	Science				
		Other (Add rows as needed)				

Number of field experience hours required for certification	University	State
Prior to student teaching		
During student teaching		
TOTAL		

**Form D: Partnering School District Profile Information**

Submit the following information for each local school district

Name and Address of the District				
Number of Campuses	Elementary	Middle	High School	Other Campuses

2007-2008 School District Student Demographics			
Number of Students	Grades K-5	Grades 6-8	Grades 9-12
	Number of Students by Ethnicity and Income		Number
African American			
American Indian			
Asian			
Hispanic			
White			
Other			
Total			100%
Free or Reduced-Priced Lunch			