



**WHAT STARTS
HERE
CHANGES
THE WORLD**

ACCESS TO HIGH-QUALITY STEM EDUCATION STARTS WITH HIGH-QUALITY STEM TEACHERS.

UTeach is the unique secondary teacher preparation program for STEM majors that answers the critical need for qualified STEM teachers here in Texas and across the nation. UTeach allows students to graduate from the College of Natural Sciences with a degree in their major and a secondary STEM teaching certification with no added time or cost. UTeach teachers are both experts in their chosen field and STEM pedagogy. With a nationally scalable program for universities, UTeach is producing a growing number of teachers to educate tomorrow's scientists and engineers who, in turn, will play a vital role in America's economic growth.

Having a teacher with a bachelor's degree in the relevant field of study is a predictor of student achievement in K-12 mathematics and science. However, about 20% of students in mathematics and more than 60% of students in chemistry and physics have teachers with no expertise in those fields. UTeach helps solve this problem by graduating high-quality and deeply committed teachers with demonstrated improve student outcomes. Studies show that students of UTeach graduates gain an additional 4 months of learning in math and 5.7 months in science.

UTeach students are placed in local Austin classrooms, starting in their first semester, where they work with in-service teachers to develop and teach lessons. This early field experience and sustained guidance and support from professors in the College of Natural Sciences and Education, as well as Master Teachers, helps UTeach students make prompt and informed decisions about their futures as teachers — of the 87% of UTeach students who enter teaching careers after graduation, 79% are still teaching five years later.

IMPACT ON AND UTEACH'S RESPONSE TO COVID-19

On Friday, March 13, faculty and staff at UT Austin received word that the University was closing because of COVID-19 and would add an extra week to Spring Break. The directive was that when classes resumed, they would all be online. This meant a more rapid change to instruction than instructors or students could have imagined. Faculty worked during the two-week break to move curriculum to online learning platforms for classes, labs, and community outreach. Because the UTeach program is embedded in our local community, we had to coordinate our pivot to remote learning with in-service teachers at schools where our students helped teach classes and organizations where our UTeach Interns worked as guides, tutors, mentors, and educational leaders.

Upon resuming classes on March 30, all curriculums had been moved to online, and professors, Master Teachers, and students had risen to meet the new challenges of remote teaching and learning. UTeach instructors were overall surprised by how smooth the transition was; below is a sampling of comments from the first day.

Apprentice Teaching: "Kelli and I met with the Apprentice Teachers last Wednesday in the seminar setting as they're getting ready to go out and teach online. We used near pod and Kahoot to make the seminar more interactive and to keep the students active and accountable during the session. It felt like it was a much-needed visual check-in with the students to help answer their questions and make them feel connected as they move forward teaching online."

Functions and Modeling: "Class went very well today...I am really happy with the zoom environment and seeing my students. I actually feel very energized by this new teaching environment and feel I am improving as a teacher in keeping students accountable for participation. Breakout Rooms went well, sharing my PowerPoint Slides, students sharing their work, students raising their hand to answer questions, student typing in chat to answer questions, all is working smoothly!"

Step 2: "Step 2 was awesome! Our students joined a synchronous lesson via Zoom. Student interaction and use of breakout rooms was effective. We are all looking forward to next week."

Research Methods: "went better than I expected. ... Presentations went very smoothly with everyone learning how to share screens.

... The 7 who presented today were a high level, so the remainder should have a good example. At the end, spontaneously, one student thanked me for making the class interactive."

The most serious challenge UTeach classes face, of course, once they go online, is providing students' field experiences that lead them to becoming effective classroom teachers. Instructors have been trying many different approaches, and in many cases have been successful at having students assist and participate in the high school online environment.

Here are some sample testimonials from the second week of April:

"I wanted to update you guys on how I am using ##### with the online teaching. She is a godsend. She created 2 of the five modules that we put in Blend. They are awesome! Even more importantly, she has set up our zoom meetings that we will use for office hours. I am having her host the meetings and I will just log in. I have enormous confidence in her teaching ability. She will be running the show. She has really taken the pressure off of me. Thanks for sending her my way!"

"I just wanted to let you know that I enjoyed meeting with other educators and cooperating teachers to connect about how our future as educators will look. Additionally, my student teacher is "Kealing it!" She just took on her first online class seamlessly, and I'm so lucky to have her this semester. Thank You for all that You do for us, our future educators, and our students."

"##### has gone above and beyond. Have you checked her Blend account for Chemistry? She has designed videos, fun and inventive learning experiences using video games and her kids are responding so well to her. I absolutely, without reservation and emphatically recommend her for anything and everything that she wishes to undertake."

UTeach Internships

Internships were suspended for two weeks as the program director contacted each of the 30

internship sites to inquire of their plans for distance learning during the shutdown. Many sites shut their doors, while others transferred to online learning. We were able to place 38 out of the 154 interns with organizations that needed extra help with remote learning and tutoring and are prepared to place more than 100 interns with organizations in the fall.

At the beginning of the fall semester, 18 organizations attended our UTeach Virtual Internship Fair, signing up 78 UTeach students as interns.

The UTeach Outreach UT PREP Summer STEM Pathway

Camps were suspended its traditional format on-campus summer camps and went online with:

- Support for PREP students and families took place in an environment that has been less than ideal for supporting the learning of underrepresented populations. UT PREP directors tracked participating students who did not return to school after spring break, secured laptops, and equipment, provided technology support, shipped learning kits, and created weekly [newsletters](#) with vetted material on free lessons online and updates on the learning modules.

Camp Outcomes

- We offered 31 course modules over 7 weeks of programming
- These modules covered 20 different STEM topics and represented 660 total program hours
- We filled 531 total seats, with 217 of these seats (41%) going to scholarship students
- We served 269 total students, with 141 students attending two or more modules
- Average number of students per course was 17, creating a roughly 6:1 student to teacher ratio

