

High-Technology Education Coalition of Collin County

Questions and Answers

1. **What is Hi-TECCC?** Hi-TECCC is a collaborative effort designed to ensure that area students receive a high-quality education in the fields of science, technology, engineering and math. Among other things, the collaboration will provide internships and increased scholarship opportunities for students and strengthened professional development programs for teachers.
2. **Who are the coalition members?** The charter members of Hi-TECCC are the Plano Independent School District, the Collin County Community College District and The University of Texas at Dallas (UTD) with an advisory committee of industry leaders from Lockheed Martin, Nortel Networks, Raytheon and Texas Instruments.
3. **How did the coalition evolve?** The coalition grew out of conversations initiated among the entities that were involved in Texas Instruments' plans to build its next manufacturing facility in Collin County and a \$300-million commitment by the state and University of Texas System to enhance the standing of UTD's Erik Jonsson School of Engineering and Computer Science.
4. **What is the necessity to strengthen math, science, engineering and technology education in north Texas?**
 - Data indicate that fewer students across the state are pursuing degrees in engineering - an 8.6 percent drop from 1988 to 2001.
 - For the same time period, across the nation, electrical engineering degrees declined 47 percent, from 24,367 to 12,929, according to the American Association of Engineering Societies.
 - More than 50% of today's engineering and computer science degrees are going to foreign nationals. An increasing number of these graduates are then taking their expertise back home rather than contributing to the US economy. (NSF)
 - More than half of all science and engineering workers are 40 years or older and will be retiring in the next 10-20 years.

The coalition's intention is to strengthen the collaboration among the individual educational institutions and implement continuous improvement in the educational infrastructure so companies expanding or relocating will find a positive climate for research and innovation in Collin County. It is also believed that other careers will benefit from the problem-solving skills developed with strong math and science backgrounds.

5. How will high school and college students benefit from this coalition?

- high school internships on the UTD campus for Plano ISD sophomores and juniors;
- Academic Excellence Scholarships for qualified Plano ISD students;
- articulation agreements between CCCCD and UTD to guarantee a smooth transition from one institution to the other;
- expansion of early and concurrent admissions programs.

6. How will the coalition benefit area teachers?

- Advanced Placement (AP) institutes to train and certify teachers in AP instruction;
- professional development opportunities at UTD for PISD and CCCCD instructors;
- continuing education scholarships for faculty;
- creation of a “community of scholars” composed of faculty from PISD, CCCCD and UTD to help develop seamless curricula in math, science and related areas of study.

7. How will the business partners be involved?

The Industry Advisory Committee will work with Hi-TECCC to:

- enhance and strengthen current strategies and define new programs that help improve student achievement,
- help guide future curriculum offerings,
- increase the number of Collin County students pursuing engineering and technical disciplines at Collin County higher education institutions,
- improve student retention pursuing technical degree plans,
- and enhance the research and intellectual capacity of Collin County.