

Southeast Transportation Workforce Center

ACTION PLAN PRIORITY: T-STEM ACADEMY AT EAST HIGH SCHOOL

The Southeast Transportation Workforce Center (SETWC) is supporting development of a transportation - STEM (T-STEM) focused blueprint through an exemplar high school in the Memphis area as one of the priority action items identified in its strategic plan. The vision is that this school and its collaborative partnerships will become a local, regional, and national example for preparing students for STEM careers, with particular focus on the transportation industry. The T-STEM model serves as a platform for truly transformational educational experiences for students that prepare them to be successful in post-secondary career and educational endeavors.



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WHY T-STEM AND WHY MEMPHIS?

- The transportation industry is a critical component of the economy of the Southeast region, with 11 of 12 Southeastern states/territories identifying transportation and logistics as priority industries.
- More than 50% of the transportation industry's workforce will be eligible for retirement in the next 10 years- a pace double that of the nation's entire workforce.
- Transportation industry stakeholders in the Southeastern US indicate recruitment of new workers is a significant challenge, and identify lack of awareness and misperceptions about transportation careers and lack of qualified candidates as the greatest barriers that must be overcome.
- Transportation makes up a greater percentage of jobs in Tennessee as compared to all other states in the Southeast, with Memphis employing more professionals in the industry than any other metropolitan area in the country.
- Known as 'America's Distribution Center', the convergence of five Class I railroads, the nation's largest cargo airport, the fourth largest inland port, and seven interstates and US highways uniquely positions Memphis as a logistics leader nationwide.

WHAT IS THE T-STEM MODEL?

- A unique transportation community-engaged approach that creates a program to prepare students to successfully pursue STEM careers (and specifically those in the transportation industry) through active involvement of higher education and industry stakeholders in all aspects of development and implementation.
- Three programs of study (Aviation, Engineering, and Transportation, Distribution and Logistics) are available, with plans to expand to encompass even more career pathways, including Diesel Technology, as the program develops.
- Undergraduate and graduate T-STEM majors at the University of Memphis serve as transportation ambassadors and mentors to students in the program, working to engage and inspire students and to support teachers in the program.
- Numerous extracurricular events, such as career expos, conferences, field trips, and industry internships are part of the T-STEM model in order to expand real-world context and engage students in further exploration of transportation careers.
- Curriculum aligned with industry state-of-practice creates multiple pathways for dual enrollment and higher education credit, and focuses on project-based learning to expose students to a variety of career pathways, modes, and disciplines.
- The T-STEM location, East High School, is reimagined and transformed as a model for innovative college and career ready education in the state, region, and nation.

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WHAT IS THE VALUE TO INDUSTRY PARTNERS?

- Opportunity to introduce transportation careers while highlighting company mission, values, and career options and to be engaged in an innovative approach to educating the next generation workforce;
- Direct access to undergraduate and graduate students who are serving as program ambassadors and are interested in the transportation industry
- Ability to move the needle in addressing transportation workforce challenges through partnership with SETWC in this initiative.

WHAT DOES A COMPANY'S COMMITMENT LOOK LIKE?

Companies engaged in the T-STEM partnership are asked to commit to at least three of the following:

- Providing a speaker (or group of speakers) to visit with students and share information about their personal career path and types of workers employed/career opportunities with the company (5 hours per year)
- Providing professionals to serve as mentors for relevant class projects, competition/presentation judges, career day presenters, and mock-interview participants (5 hours per year)
- Coordinating an office or industry tour for T-STEM participants (3-5 hours per year)
- Serving as guest lecturers providing industry-relevant content and expertise to T-STEM curriculum (5 hours per year)
- Serving on a curriculum development committee to ensure alignment of T-STEM curriculum with industry needs (10-15 hours per year)
- Financial sponsorship of T-STEM programs and activities
- Company representatives will also be asked to provide feedback via an online survey regarding their experience with the program and suggestions for enhancing experiences.

Interested in becoming a partner?

Contact Stephanie Ivey for more information.

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