

Executive Summary

The Skilled Trades High School Academy will provide high school students, grades 11-12, an opportunity to participate in Texas Commission on Environmental Quality (TCEQ) license training for employment as licensed professionals in Class D Water and Class D Basic Wastewater Operations.

Over the past two summers the Skilled Trades Consortium, a partnership of public and private utility firms and Pflugerville ISD, has developed a training model for grade 12 high school students and trained 13 high school graduates. Four met licensing eligibility requirements and have gained full-time employment as Class D Water Operators with consortium partners, and as a result industry partnership has expanded from four to six. All 13 students reported the academy was valuable, they would recommend it to friends, and were glad they participated.

There is now an opportunity to expand the academy through the Texas Legislature's action to enact a bill (HB 1845) that allows high school students to earn a provisional license from TCEQ before graduation. With the provisional license option, the consortium will open the academy to students enrolled in grades 11 and 12, representing at least four central Texas school districts comprised of more than 100,000 students from urban, suburban, and rural areas.

The Skilled Trades Academy model's success is achieved through a blended learning approach. Students participate in direct instruction with a TCEQ approved training provider, visit treatment plants, well sites, and testing facilities to see the learning in practice, participate in a resume writing workshop and mock interview, and engage in demonstrations of relevant equipment and processes. The four-week academy is scheduled four-hours per day, five-days per week; sometimes extending to five-hours per day for site tours. At the conclusion of the academy TCEQ sends an exam proctor to administer the licensing exam at the training site and expedited the result reporting process. Students who successfully complete the academy are eligible for a guaranteed job interview with at least one industry partner.

Graduates who complete the academy will receive a stipend to offset missed employment income and a guaranteed job interview with a consortium partner. Additionally, successful academy participants entering high school grade 12 may apply for a competitive paid internship, to stay engaged with the industry partners until full-time employment eligibility upon high school graduation, and 18-years of age.

Project Area:

The Skilled Trades High School Academy, operated by the Skilled Trades Consortium, will address the need to increase the skilled talent pipeline in water and wastewater operations through a high school summer training program for students in grades 11 and 12.

This innovative approach takes advantage of direct industry partnerships and collaboration with the Texas Commission on Environmental Quality (TCEQ) to train and license students while completing high school through a short-term academy offered during the summer. This model is efficient, does not interfere with student high school schedules, and is targeted to students not pursuing direct-to-college enrollment upon graduation. Students gain valuable industry training, network with employers, and can complete licensing requirements while employers help develop their workforce and raise awareness of the industry.

Regional employers recognize the need to increase awareness of the industry, and train new operators to enter the field as at least 30% of the professionals currently in the field will retire within the next ten years. The Skilled Trades Consortium was formed of a community representing Pflugerville Independent School District and surrounding public and private water and wastewater businesses. The consortium has expanded over two years to add additional school and industry partners. Pflugerville ISD has an existing partnership with the Workforce Solutions Capital Area workforce development board for many career and technical education (CTE) programs, and they have been a beneficial partner in providing workforce readiness training and labor market data. The consortium meets about eight times per year to review previous academy results and plan for the upcoming academy. Each partner determines their level of commitment to the academy and contributes staff and resources to enhance the learning experience for students. The Pflugerville ISD Career and Technical Education (CTE) Director serves as the consortium chairperson, and coordinates meetings, academy scheduling, and consortium activities like career fairs and recruitment events.

Students in grades 11 and 12 will be recruited for the academy from at least four central Texas school districts, and the academy held in a central location, which has previously been a Pflugerville ISD campus. Recruitment activities include participation in career fairs hosted by regional school districts and chambers of commerce, presentations to students at their campuses, and web/social media-based postings. Additionally, the academy is being highlighted in local news outlets in November 2023, and that will be used by the schools to raise awareness of the academy. A Google Form is used to collect student interest throughout the recruitment phase, and the Consortium Chairperson connects with interested students and families through email, phone, and their school

counselor/Career and College Advisor. Direct recruitment events, at the high school campuses, occurs between February – April, with enrollment finalized in early May so instructional materials, transportation, and other supports can be secured.

The academy will expand from Class D Water Operator license training to also include both Class D Basic Wastewater Operator and general utility safety training courses. The courses will be taught over a four-week period in June, scheduled for four hours each weekday. Over the course of the four-week academy students will receive in-person classroom instruction from TCEQ approved instructors supplemented with video instruction created by a statewide water professionals' organization, guest speaking engagements with operators employed by the industry consortium members, and presentations from partner industry professional organizations. Students will also participate in site tours of water and wastewater treatment facilities, well sites, and testing labs throughout the academy to bring relevance and authenticity to the classroom instruction. A Career and Education Coach from Texas Workforce Solutions Capital Area will provide a half-day training on resume writing and interview skills, and Human Resource representatives from the employer partners will lead students through mock interviews designed to prepare them for application to employment at the conclusion of the academy. These mock interviews help the students and employers learn more and determine which might be the best fit for each other. In addition to the work-based learning experiences mentioned above, students will also engage in demonstrations and hands-on learning activities by water and wastewater operations vendors. Certified instructors will lead the safety training from the consortium employer partners and is being added at the request of the employers as an essential skill for their workforce.

The first day of the academy includes introductions to the employer partners, licensing training instructor, the academy structure overview and schedule, and dissemination of learning materials and personal protective equipment (PPE). Topics required in the respective 20-hour training courses will be introduced by the licensed instructor, supplemented with TCEQ approved training videos and industry guest speakers on one day and then demonstrated through work-based learning experiences the next day. This format will be used throughout the four-week academy at the request of former students, who previously completed the entire 20-hour training in one week and participated in all work-based learning experiences the remaining three weeks. Student and partner surveys are used to gather valuable input on strengths and areas for improvement each summer and help the consortium to update the academy structure to maximize success in subsequent years. The video instruction is also a new addition to the academy and is expected to support the diverse learning styles of students who participate in the academy

Project Partnerships

The consortium partners work together, during the planning meetings, to determine roles and responsibilities and establish Memorandums of Understanding that clearly outlines each partner's obligations to the academy. All employer partners agree, at a minimum, to provide at least one guest speaker and/or site for tour, an HR representative for the mock interviews, and guarantee job interviews to successful academy graduates. The education partners agree to actively recruit students through career fairs, class presentations and meetings, parent newsletters and meetings, and other means as available, such as counselor one-on-one meetings with students. And, the industry professional organization partners provide contacts for guest speaking, demonstrations, site tours, and instructional resources like training videos and TCEQ approved instructors. Pflugerville ISD provides a training site for classroom instruction, bus transportation to and from the work-based learning sites, and a PfISD staff member to facilitate in the classroom and serve as chaperone for travel to the sites. Pflugerville ISD also makes lunch available to all participating students at the training site to the extent permissible by school meal rules. All consortium members participate, on an as-needed basis, in the career fairs to recruit for the academy, and promote the academy within their respective circles of professional influence.