



JACK E SINGLEY ACADEMY
T-STEM Renewal Application
2019-2020

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Background

District Affiliation

IRVING ISD

CD #: 057912

Region: 10

Mailing Address (Line 1): P O BOX 152637

Mailing Address (Line 2):

City, State, Zip: IRVING, TX 75015

School Affiliation

JACK E SINGLEY ACADEMY

CDC #: 057-912-006

Region:

Mailing Address (Line 1): 4601 N MACARTHUR BLVD

Mailing Address (Line 2):

City, State, Zip: IRVING, TX 75038

Academy Information

T-STEM Academy Name:

JACK E SINGLEY ACADEMY

Are you currently in the 2018-2019 planning year or are a 2018-2019 planning grantee?

No

What grade level range will your academy serve in the 2019-2020 school year?

9-12

Grade Level	Number of Students	School / CDC # Where Students are Enrolled
9	255	JACK E SINGLEY ACADEMY (057912006)
10	270	JACK E SINGLEY ACADEMY (057912006)
11	200	JACK E SINGLEY ACADEMY (057912006)
12	210	JACK E SINGLEY ACADEMY (057912006)

Contacts

Superintendent

Job Title: Superintendent
Full Name: Mrs. Magda Hernandez
Email: mhernandez@irvingisd.net
Phone Number: 972-600-5000

Applicant

Job Title: Instructional Technology Specialist
Full Name: Mrs. Katie Crone
Email: kcrone@irvingisd.net
Phone Number: 972-600-5300

IHE Liaison

Affiliation: Dallas County Community College District, Northlake College
Job Title: Dean, Student Support Services-Dual Credit
Full Name: Mrs. Tiffany Kirksey
Email: tiffanykirksey@dcccd.edu
Phone Number: 972-273-3028

Business Partner

Affiliation: Express Employment Professionals of Irving TX
Job Title: Owner
Full Name: Mr. Mike Overby
Email: mike.overby@expresspros.com
Phone Number: 469-222-6455

Narratives

Model Implementation

Which T-STEM model does the district intend to implement at this time? Within these models, there are variations. For this purpose campus is defined as a CDC number not a physical location.

School-Within-School (SWS) - A subset of students on the campus are enrolled in grades 9-12 are enrolled in the T-STEM academy.

Endorsements

Identify the current endorsements that are offered:

- Science, Technology, Engineering, and Mathematics (STEM)
- Business and Industry
- Multi-disciplinary Studies

Certificates

Does this academy offer Associate Degrees to students?

Yes

Industry Certificates

Identify all industry certificates offered to students.

Certificate	Description
Certified Dental Assistant	The preparation of the patient for treatment, providing the dentist with proper instruments, polishing teeth, processing dental x-ray films, and sterilized and disinfected instruments.
Emergency Medical Technician (EMT)	Encompasses pre-hospital trauma and medical care that is necessary for basic life support, including CPR and control of hemorrhage.
National Incident Management System (NIMS) Measurement, Materials, & Safety	Identifies courses in measurement, materials, & safety critical to train personnel capable of implementing all functions of emergency management.
National Incident Management System (NIMS)	Identifies courses in job planning, benchwork and layout critical to train personnel capable of implementing all functions of emergency management.
National Incident Management System (NIMS) CNC Milling: Operator	Identifies courses in milling computer numeric control (CNC) critical to train personnel capable of implementing all functions of emergency management.
National Incident Management System (NIMS) CNC Turning: Operator	Identifies courses in turning computer numeric control (CNC) critical to train personnel capable of implementing all functions of emergency management.
Phlebotomy Technician	Prepares individuals as important members of the clinical laboratory team in drawing blood from patients and taking the blood specimens to the laboratory to prepare for testing.
Patient Care Technician and Pharmacy Technician	Doctors, nurses and other healthcare professionals rely on Patient Care Technicians/Assistants to assist with the critical day-to-day care some patients require.
Certified Nursing Assistant	Prepares individuals to work with RNs or LPNs in nursing homes, hospitals, adult day care centers, personal homes and assisted living

facilities.

Health Care Provider BLS CPR	Trains individuals to respond to cardiac and breathing emergencies for adult, child, and infant victims.
EKG Technician	Prepares individuals to work in healthcare facilities with doctors and technologists and specialize in electrocardiogram (EKG) testing for patients.
OSHA 10 Hour	Teaches recognition, avoidance, abatement and prevention of safety and health hazards in workplaces.
Oracle Certified Associate, Java SE 7 Programmer	Helps individuals build a foundational understanding of Java, while expanding their knowledge of general programming.
Professional Scrum Developer I (PSD I)	Individuals demonstrate knowledge and understanding of Scrum and their ability to build software using Scrum in real-world situations as a part of the Scrum Development Team.
Microsoft Technology Associate	Individuals will acquire a wide spectrum of basic technical concepts, assesses and validates core technical knowledge, and enhances technical credibility.
Cisco Certified Entry Networking Technician (CCENT)	A CCENT certified professional installs, maintains and troubleshoots small networks or a branch of an enterprise network, and implements basic network security.

Level One Certificates

Identify all level one certificates offered to students.

Certification	Description
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Level Two Certificates

Identify all level two certificates offered to students.

Certification	Description
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TSIA

Does this academy administer the TSIA exam?

Yes

What ID number do students use when taking the TSIA exam?

Unique State Assigned ID

Key Elements for Success

Provide a link to the job description, roles of design team, leadership team, and advisory board.

<https://www.irvingisd.net/stem>

Provide a link to the final, signed, and executed MOU.

<https://www.irvingisd.net/stem>

Provide a link to the academy's master schedules.

<https://www.irvingisd.net/stem>

Provide a link to the academy's written admission policy and enrollment application.

<https://www.irvingisd.net/stem>

Provide a link to the academy's written recruitment plan including a timeline of recruitment and enrollment events, and recruitment materials for distribution at feeder schools and other appropriate locations in the community

<https://www.irvingisd.net/stem>

Provide a link to the academy's internship and externship opportunities.

<https://www.irvingisd.net/stem>

Free-Response

Describe how the Academy will recruit, support, and retain highly qualified teachers.

Singley Academy utilizes the Irving ISD Human Resources hiring process for recruiting highly qualified teachers. Irving ISD offers competitive salaries, benefits, a plethora of professional development opportunities, and a mentoring program for teachers new to the district. The district has professional development designed to improve class management, classroom climate, lesson planning, student data tracking, student learning and goal-setting, critical thinking, checking for understanding, differentiation, academic conversations and reading and writing across the curriculum. At Singley, we have included peer coaching, and Project Based Learning (PBL) workshops for STEM/CTE teachers. In addition, Singley's new teachers are assigned mentors who will guide the teachers through a detailed new teacher mentoring program. Professional Learning Communities (PLCs) occur within the master schedule as well as after school to collaborate on instructional strategies. Content is planned based on data-driven research during PLCs.

Describe the current STEM pathways available at the academy.

The goal of the Career and Technical Education programs is to ensure ALL students are provided courses that offer opportunities to prepare for secondary and post-secondary education, career preparation and advancement, meaningful work, and active citizenship. The STEM pathways at Singley offer a rigorous curriculum to assist students in becoming college and career ready. At the end of the programs, students are able to make a seamless post-secondary transition or enter the workforce. Students within the STEM pathways have opportunities to obtain certifications and Associate Degrees. Jack E Singley has signature STEM pathways which are housed in different schools. The School of Innovative Technology includes Technology Support Services, Geographic Information Systems, Robotic Manufacturing, Cyber Security and the Video Game pathways. The School of Health Science includes Patient Care Technician, Pharmacy Technician, Dental, Emergency Medical Technician and Sports Rehabilitation pathways. Students enroll in introduction courses during their freshman year and then continue the pathway each year building upon skills and knowledge in the pathway. By a student's senior year, the student will have had the opportunity to gain certifications and complete a capstone project, practicum, or internship.

Describe how strategic alliances with industry partners and IHEs will support the Academy. The description should include details regarding the role of each IHE, business, and/or community partnership; along with parent/family partnerships and communication conventions with the Academy.

We have several key business and industry partners to provide STEM- related job shadowing, internships, and externships for students. Our partners include the State Farm IT Department, CitiGroup, City of Irving, NetVision, Home Depot, Goldman Sachs IT/Robotics Venture Capitalism, Northrop Grumman, Fluor, Romeo Engineering, Toyota of Irving, Baylor Healthcare, Parker Chiropractic, Jefferson Dental, Silverado Valley Ranch Memory Care, and self-employed members of the Innovative Technology, Medical and or STEM-related industry. Currently, each pathway has its own advisory board that meets quarterly and includes staff, students and community partners. Real-time communications are evident via communications technologies such as websites, electronic messaging via phone, and media presentations using the community's public service forums, (public television and radio). Leadership is easily accessible and continuously engages partnerships with stakeholders in community and student families. Additionally, Singley Academy partners with Dallas Community Colleges to ensure a college-going culture among the student population, as well as providing annual college trips to multiple in-state colleges. Registration and financial aid support is offered to students through Singley Academy.

Describe the Academy's work-based and contextual learning in the curriculum.

Technology has been utilized in the STEM program to simulate industry standards. Students collaboratively present to industry partners and receive feedback. The pathways are rich in problem solving and technology use. Speakers, outside research, field trips, and mentors offer opportunities for exposure to the STEM fields. In addition, local industry partners will observe Singley student presentations at the annual Celebration of Excellence. We have included instructional focused training on literacy across the curriculum and Response to Intervention. In addition, with PBL, teachers collaborate between disciplines to develop problem-based learning opportunities relevant to real-world scenarios in various industries.

PLCs meet regularly to discuss data and how this drives instruction. Our district uses class assessments, Measures of Academic Progress (MAP) data, benchmarks, district assessments and EOC data to coordinate instruction and class groupings. Singley Academy has PLC meetings embedded into the master schedule allowing all stakeholders to collaborate and learn together.

Describe the STEM-focused extracurricular activities (field experiences, clubs, and competitions) offered to students.

Singley Academy offers unique opportunities for STEM-focused extracurricular activities. The school offers Career Technical Student Organizations (CTSO) for all of its pathways. Two very large award-winning organizations on campus include the Health Occupations Students of America and Business Professionals of America. In addition, the Robotics team, Aftershock, offers all students the opportunities to become involved in competitions. Girls of Technology is another organization that is geared toward recruiting, retaining and empowering female students in the field of STEM. Other organizations include Friday Night Tech, SkillsUSA, Chess Club, Academic Decathlon and the Technology Student Association. In addition to clubs, students experience field trips to industry and business locations, guest speakers, internships and other specialized competitions.