# **ADVANCE CTE EXCELLENCE IN ACTION AWARD**

**PROGRAM SUMMARY**

Advance CTE is pleased to announce a call for applications for the sixth annual Excellence in Action awards, through which we recognize and honor superior Career Technical Education (CTE) programs of study from across the nation.   
  
**CRITERIA FOR JUDGING**

Selected programs will exemplify excellence in:

* Implementing Career Cluster®-based [programs of study](https://careertech.org/programs-study);
* Maintaining effective employer and business partnerships;
* Demonstrating alignment to rigorous and relevant college- and career-ready expectations;
* Demonstrating a clear progression of knowledge and skills and learner transitions across secondary and postsecondary systems;
* Integrating successful career guidance and advisement;
* Integrating high-quality work-based learning experiences;
* Highlighting alignment to workforce and employer needs in the community;
* Providing concrete data on the program of study’s impact on learner achievement, success at both the secondary and postsecondary levels and meeting the needs of underserved populations; and
* Delivering high-quality and effective instruction.

**ELIGIBILITY**

* This award is open to any public secondary or postsecondary schools or colleges in the United States. Your school or institution may submit one application per [Career Cluster](http://careertech.org/career-clusters);
* The program of study must have at least one full graduating class;
* Your program must be eligible to receive funding from the Carl D. Perkins Career and Technical Education Act;
* Applications that do not include data to demonstrate positive impact on learner achievement will not be eligible for consideration.
* If your program has received in an Excellence in Action award from Advance CTE in the past, you may not apply for that same Career Cluster. However, your school or institution may apply in a different Career Cluster.

**AWARD SUBMISSION REQUIREMENTS**

Complete applications will contain the following:

* A completed application including supplemental materials by the application deadline of **November 21, 2018 at 5 p.m. ET.**
* At least one letter of support from an employer or business partner supporting the program of study; and
* At least one additional letter of support from a partner (education, community or business) of your choosing.
* *Optional:* Supplemental materials including photos, videos, news articles, etc., are welcome but not required.

The application must be submitted using [this form](https://careertech.org/2019-excellence-action-application). The application must be submitted in a Microsoft Word format. Supplemental materials, including the letters of recommendation, must be combined and submitted as **one** PDF document.

*Please note:*

* Submissions should **not** include any personally identifiable learner data.
* The application does not have a page limit, however, many questions do have a word limit. Please do not submit responses that go beyond this limit. Also, submissions that do not contain all the required materials (a completed application, two letters of support and supplemental materials in the correct formats) will not be advanced for consideration.

**WINNERS WILL RECEIVE**

* A banner to hang in their school or institution;
* A digital banner to use in email and print materials as they so choose;
* Travel and one hotel room for one night in Washington, DC for a representative to be recognized at an awards ceremony to be held the week of April 8-10, 2019 at the Advance CTE Spring Meeting; and
* Discounted rate to the Advance CTE Spring Meeting

**WINNERS WILL ALSO BE FEATURED IN**

* A national press release, which will be distributed to national media.
* A winner-specific press release to distribute to local media;
* A standalone one-pager;
* A standalone blog on the [Learning that Works blog](http://blog.careertech.org/);
* Representation on the Advance CTE [website](http://www.careertech.org).
* Many past winners have been featured in national conferences, in briefs and reports, on webinars and in the media.

**HOW TO APPLY**

* Fill out the following application.
* Once you have finished, complete [this form](https://careertech.org/2019-excellence-action-application) and upload the following:
* Your full application saved as a Word document (.docx)
* All of your supplemental documents or evidence consolidated as one PDF document.

# **BACKGROUND INFORMATION**

1. Program of study name: Aviation
2. Point of Contact  
    Name: Shawn Blessing

Email Address: sblessing@irvingisd.net

Phone Number: 972-600-5049  
Address: 2621 W Airport Fwy, TX PO Box 152637, Irving Texas 75015-2637

1. Applicant’s School/College: Irving High School
2. State: Texas
3. Type of institution (click the box to check)

☐ Area technical center

☐ Career academy

**x** Comprehensive high school

☐ Community college

☐ Technical college

Other (please specify)

|  |
| --- |
|  |

1. Career Cluster in which your program of study should be considered (Follow this link for a further explanation of each Career Cluster [careertech.org/career-clusters](http://careertech.org/career-clusters)) **(Select only ONE):**

☐ Agriculture, Food & Natural Resources Career Cluster

☐ Architecture & Construction Career Cluster

☐ Arts, A/V Technology & Communications Career Cluster

☐ Business Management & Administration Career Cluster

☐ Education & Training Career Cluster

☐ Finance Career Cluster

☐ Government & Public Administration Career Cluster

☐ Health Sciences Career Cluster

☐ Hospitality & Tourism Career Cluster

☐ Human Services Career Cluster

☐ Information Technology Career Cluster

☐ Law, Public Safety, Corrections & Security Career Cluster

☐ Manufacturing Career Cluster

☐ Marketing Career Cluster

☐ Science, Technology, Engineering & Mathematics Career Cluster

**x** **Transportation, Distribution & Logistics Career Cluster**

1. In three sentences or less, describe your program of study, including the secondary and postsecondary components and how long the program of study has been in place.

The Irving ISD Aviation Sciences Academy, established in 2012, provides a learning community that challenges students with specialized curricula, real-life experiences, dual credit opportunities through partnerships with local colleges and proprietary institutions, as well as certifications and capstone activities, to prepare students for success in the aviation industry. The Aviation Academy offers programs of study in Aviation Technology and Aviation (flight). These two programs of study include academic dual credit courses, as well as Advanced Placement (AP) courses which are aligned vertically with curricula and offers an articulation agreement with Spartan College that supports a focus on greater depth of content at each grade level through complex, project-based assignments.

1. Please check the geographical and demographic setting for your program of study and describe the geographic and economic conditions of the region served by the school.

x Urban

☐ Suburban

☐ Rural

☐ Other

Irving ISD is located in the heart of the Dallas-Ft. Worth metro area, serving more than 34,000 students, in a diverse, urban setting which includes students from fifty-six (56) countries, speaking ninety-eight (98) different languages. Irving ISD has eight (8) middle schools, (3) three comprehensive high schools, (1) one technical academy, (1) one specialized career center, and one alternative school of choice. Irving High School is a comprehensive high school located in the center of the city home to 2,678 students. Irving High was the first high school campus in Irving and opened its doors from the original location in 1949. The campus hosts a robust CTE program with more than 2200 (82%) students enrolled in CTE programs of study. The School of Aviation offers students 3 pathway options, 2 in the Transportation Cluster and 1 in Engineering. The focus of this application is on the Transportation Cluster options. Irving High School is less than 10 miles from the Dallas-Ft. Worth International Airport and Dallas Love Field, the home of Southwest Airlines. Multiple Fortune 500 companies related to the aviation industry are located within a few miles of the high school campus.

Demographics for Irving High 2018-2019 year:

Campus District

African American 7.7% 12.4%

Hispanic 83.9% 72.2%

White 4.9% 9.0%

Am Indian 1 .0 1.6%

Asian 1.4% 3.0%

Two or more 1 .0% 1.0%

1. Please describe how your program of study was developed and how it ensures learners are academically and technically prepared for both postsecondary education and careers. Please also address the following:
   1. How were employers involved in the development and continue to be involved in the maintenance of your program of study?
   2. How does this program of study meet the economic needs of your community?
   3. How does this program prepare learners for postsecondary education? (if applicable)
   4. How were both secondary and postsecondary educators involved in the development and/or maintenance of the program of study? (500 word limit)

The School of Aviation provides a learning community with specialized curricula and real-life experiences which prepare students for success in the aviation industry. Students will graduate from the School of Aviation highly skilled, qualified, and college and workforce ready. The commitment at Irving High School, coupled with the support and leadership from college partners, industry, and other stakeholders, has been instrumental in the growth of the aviation program. **A.** Major stakeholders in the aviation industry were the driving force behind the inception of the School of Aviation Task Force in 2012. Establishing industry connections have enabled the Aviation Academy to build professional relationships for the programs, and create meaningful, practical, hands-on learning experiences for students. **B.** Aviation has a tremendous impact on North Texas and is a major economic driver. The Dallas-Ft. Worth region is home to over three hundred (300) aerospace and aviation employers and more than four hundred (400) aviation facilities. Along with the commercial services and general aviation activities, aerospace and aviation account for approximately a million jobs with major companies including Boeing, Lockheed Martin, American Airlines, Southwest Airlines, and Bell Helicopter. Employment growth is expected to be driven by technological advances and the need for additional pilots and aircraft technicians. The Boeing Pilot and Technician Outlook Report projects those 533,000 pilots and 584,000 new maintenance technicians will be needed in the next 20 years. The School of Aviation at Irving High School is creating a pipeline to assist industry in closing the workforce gaps, through focused programs, designed by industry, to meet the needs of industry in the future. **C.** Postsecondary partnerships have added a dimension and direction to the school of Aviation, which supports a model of continuous improvement. Adequate and highly qualified staffing has been essential to the success of the School of Aviation. The School of Aviation has Career & Technical Education developed curriculum with the support of Aviation Institute of Maintenance and Spartan College that provides students with a rigorous and focused curriculum on aviation and are integrated with high-level science and mathematics. The advanced coursework will allow students to complete mathematics, English language arts, social studies, including Advanced Placement and dual credit classes throughout their four-year plan. All students utilize the College & Career Readiness matrix which provides information and resources to allow students to preview colleges and other options, apply for scholarships and admission to colleges, and complete the FAFSA and their career portfolio. Students attend College Night, take field trips to surrounding colleges and hear presentations from highly skilled professionals in the aviation industry. **D.** Aviation instructors developed curriculum for each course in the sequence with the help and support of advisory members, postsecondary partners and through research of curriculum that is available to support the various courses. Postsecondary personnel have willingly supplied curriculum, project ideas and their expertise through mentoring to support courses offered. The curriculum is aligned so that students may receive credit for secondary course work at Spartan College or the Aviation Institute of Maintenance.

# **LEARNER POPULATION & DATA**

1. Please describe your program of study’s demographic and outcome data for the most recent academic year(s). It is our strong preference to have data from both secondary and postsecondary levels. If this is not available, please provide an explanation as to why the data from the other learner level is not available. Applications that do not include data to support positive impact on learner achievement will not be eligible for consideration. (100 word limit)

Irving ISD serves a diverse population of students representing more than 98 countries, speaking multiple languages. Irving is home to the most diverse zip code in the US. The data below represents students enrolled in the Aviation and Aviation Tech programs of study. Secondary and WBL data is limited to **seniors** enrolled in the Aviation and Aviation Tech programs of study. Individual post-secondary data is available for student enrollment for the year following graduation only because the district does not have access to private post-secondary information and information outside of the state.

**NOTE**: Please specify if and when you are using a percentage with a different denominator (e.g., seniors) than the one listed.

**When completing the data section, please only use percentages and include data that is from your program of study. Additionally, only include data where learners are eligible to participate (e.g., only seniors in high school will be eligible for the section asking for percent of seniors who graduated high school, so only seniors should be included in that data; if your work-based learning only occurs within a specific grade level, only include them in your data for that category.)**

|  |  |  |  |
| --- | --- | --- | --- |
| SCHOOL YEAR | 2015-16 | 2016-17 | 2017-18 |
| **SECONDARY-LEVEL DATA** | | | |
| **What is the total number of learners served by your school/institution?** | 2396 | 2498 | 2571 |
| What is the total number of minority learners served by your school/institution? | 2235 | 2340 | 2436 |
| What is the total number of low-income learners served by your school/institution? | 1803 | 1882 | 1868 |
| What is the total number of learners with disabilities served by your school/institution? | 184 | 207 | 221 |
| What is the total number of English language learners served by your school/institution? | 565 | 654 | 694 |
| **What is the total number of learners served by your program of study?** | 261 | 188 | 180 |
| % male learners in program of study | 88% | 88.7% | 88.8% |
| % female learners in program of study | 12.2% | 11.3% | 11.8% |
| % minority learners program of study | 90.8% | 95.15% | 91.7% |
| % low-income learners program of study | 74.5% | 79.9% | 76.6% |
| % learners with disabilities program of study | 6.7% | 8.8% | 8% |
| % English language learners program of study | 28.2% | 38.9% | 35.9% |
| Other relevant *demographic* data from your **program of study** |  |  |  |
| % of learners in program of study who earned postsecondary credit (dual enrollment, AP, etc.) | 50% | 57% | 20% |
| % of learners in program of study who earned an industry-recognized credential | 0% | 39.8% | 59.6% |
| % of learners in program of study who participated in work-based learning | 5% | 3.7% | 19% |
| % of seniors in program of study who graduated high school (who were eligible/seniors) | 100% | 100% | 100% |
| % of graduates in program of study who enrolled in postsecondary education (who were eligible/seniors) | 88% | Not avail% | 94% |
| % of graduates in program of study who entered the workplace and/or military (who were eligible/seniors) | 12% | Not avail% | 10% |
| **POSTSECONDARY-LEVEL DATA** | | | |
| **What is the total number of learners served by your school/institution?** |  |  |  |
| What is the total number of minority learners served by your school/institution? |  |  |  |
| What is the total number of low-income learners served by your school/institution? |  |  |  |
| What is the total number of learners with disabilities served by your school/institution? |  |  |  |
| What is the total number of English language learners served by your school/institution? |  |  |  |
| **Total number of learners served by your program of study** |  |  |  |
| % male learners in program of study | % | % | % |
| % female learners in program of study | % | % | % |
| % minority learners in program of study | % | % | % |
| % low-income learners in program of study | % | % | % |
| % learners with disabilities in program of study | % | % | % |
| % English language learners in program of study | % | % | % |
| **Other relevant *demographic* data from your program of study** |  |  |  |
| % of learners in program of study who completed postsecondary/earned a degree or certificate (who were eligible) | % | % | % |
| % of learners in program of study who earned an industry-recognized credential (who were eligible) | % | % | % |
| % of graduates in program of study who entered the workplace and/or military (who were eligible) | % | % | % |
| % of graduates in program of study who transitioned to further postsecondary education (who were eligible) |  |  |  |

\*Designates seniors

1. Provide links to the source of the above data. If the links are not publicly accessible, please explain the source of the data. If you are missing any data, please explain why and how you measure success.

PEIMS (Student Management System)

CTE software (Eduthings) to track student progress

Texas Education Agency reports on student progress

Counseling Center stats

Texas changed curriculum in 2017-2018 and previous year’s enrollment data was not accurate due to change in course sequences and courses. % of graduates represented includes on seniors who completed the 4-year program. Success is measured by # of completers, certifications earned.

1. How does your school or institution ensure equitable access for learners with diverse backgrounds? (150 word limit)

The requirements to enroll in the School of Aviation are based on space availability and student interest. There are no prerequisite requirements to enroll in the School of Aviation. The learning is sequenced so that the courses scaffold the learning from grade level to grade level. The School of Aviation enrolls 150 students in their 9th grade year. Students choose between 3 pathways their 10th grade year, Drone Engineering, Aviation, Aviation Tech. Irving High School has four (4) middle schools which are included in the Irving High School cluster. Students choose their program-of-study in the eighth grade. The district has a fair and equitable process in place for students who wish to transfer to the School of Aviation from another campus within the district. Information regarding the School of Aviation options, courses are provided to middle school students through counseling staff, and Aviation instructors at Irving High School.

1. How do you ensure learner success, especially of those who from diverse backgrounds? Please provide examples of what supports you offer learners. (150 word limit)

Students enroll in a coherent sequence of courses beginning in the 9th grade. The curriculum for each course becomes more rigorous, and provides greater depth at each grade level. Relevant, real-world projects increase depth of knowledge and CTSO competitive events allow students to showcase their knowledge and skills. In addition to a strong curriculum, students work with mentors from the aviation industry, participate in field-based events and enroll in a capstone course that allows work-based learning experiences, and industry certification opportunities. Dual credit and AP classes are offered at no cost to students. Tutorials are available everyday at each grade level. The School of Aviation offers a parent/student orientation, postsecondary counseling for parents and students, and college tours. Instructors are trained each year in differentiated instructional strategies, integrated instruction and work with postsecondary partners to ensure that curriculum prepares students for postsecondary opportunities.

1. Is your program of study associated with a Career Technical Student Organization (CTSO)? If so, which one(s) and in what way(s)? (Check the [approved list](http://www.ctsos.org/ctsos/) of CTSOs) (50 word limit)

The School of Aviation participates with SkillsUSA to enhance curriculum and involves all students in competitive and leadership events. Students develop essential skills such as communication, teamwork, and learn how to utilize and gain a competitive edge in the work force. Students compete at the district, state, and national levels.

1. Describe how career guidance/advisement is integrated into your program of study to support learners’ completion of the program of study and entry into additional education/training and/or a successful career. Describe how you recruit students into CTE programs. Where applicable, describe the tools (individual career and academic plans, career exploration websites, etc.) that are provided to learners and how they are used. (200 word limit)

All students receive career guidance and counseling from their CTE teachers, as well as campus counselors. CTE courses have integrated a College and Career Readiness (CCR) Plan in all CTE courses which includes: Career Assessments, Exploration, postsecondary options, College and Career Planning. In addition, the CCR includes units covering the important soft skills that all students need for success: communication, teamwork, ethics, problem solving, work quality, listening, and time management. School of Aviation students are also provided guidance from:

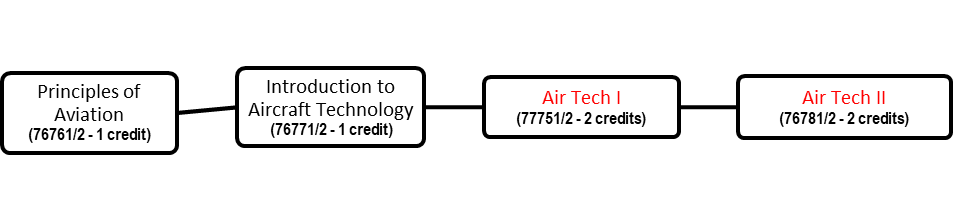
* School of Aviation Advisory members mentor individual students regarding career opportunities in the aviation industry.
* Students participate in CTSO competitive events and professional organizations linked to aviation.
* Internships provide students with the real-world relevancy that connects them to their career choice.
* Classes are taught by industry specialists, such as engineers, aviators, aviation techs, and operations specialist.
* Dual credit classes and college fairs prepare students for the highly technical and skilled aviation industry.
* Counselors provide all students with career assessments, PSAT, Explore, and the SAT tests at no cost to the student.

1. Which technical, academic and/or employability standards does your program of study incorporate at the secondary and/or postsecondary level and how? (Please list the standards you use and be specific regarding how your program uses industry, national, state and/or locally-developed standards) (250 word limit)

|  |  |
| --- | --- |
| **Standard Types** | **Please list the standards your program of study uses and how it uses them below:** |
| Academic Standards | School of Aviation students follow the 4-year plan established by the state, and requires students to identify a program of study as freshmen that falls under an “endorsement”. CTE content is aligned with challenging academic standards and relevant technical knowledge and skills, necessary to prepare for college and careers in aviation. CTE follows the state objectives for courses in the School of Aviation programs, and utilizes the curriculum for the dual postsecondary programs at the Aviation Institute of Maintenance, Spartan College and North Lake College. |
| Career Cluster or Technical Standards | The Aviation program provides students with the opportunity to earn industry certifications, and develop the skills and academic core to prepare them to meet postsecondary goals. Students complete a sequence of courses in which their knowledge and skill level increases each year. All students may participate in a capstone course as juniors, and internships or dual credit classes as seniors. |
| Employability Standards | Students in the Aviation program work daily to master skills identified by industry partners as necessary for success. Students learn and develop skills in the areas of critical thinking, creativity, collaboration, communication, flexibility, and leadership, in addition to technical skills required of industry professionals. |
| Other | Irving ISD was named a top digital district by the Center for Digital Education, selected for our use of innovative technologies. All Aviation Academy students have access to cutting edge technology, including equipment, software, and computers. |

# **SEQUENCE OF COURSES & CREDIT TRANSFER**

1. Please fill out the chart below, and describe your program of study’s course sequence by grade level, including the relevant or required academic and technical courses, as well as other required activities.   
     
   **Make sure to highlight the course sequence that bridges secondary and postsecondary education.** Explain how your program of study ensures learners gain the broader Career Cluster-level knowledge/skills and, over time, gain the more specific occupation-level knowledge/skills as they progress through the program of study. You can also include graphics or [plans of study](https://cte.careertech.org/sites/default/files/PlanPathways-CareerCluster-AG-AgribusinessSystem.pdf) of the course sequence in lieu of filling out the chart below.



**AVIATION INSTITUTE OF MAINTENANCE**

**AVIATION MAINTENANCE TECHNICIAN (AMT)   
(1,920 HRS)**

|  |  |
| --- | --- |
| Aviation General Science I | \*Math and General Physics (Articulated credit) |
| Aviation General Science II | \*Tools, Surface, and Corrosion control (Articulated credit) |
| Aviation General Science III | \*Maintenance Operations and Records (Articulated credit) |
| Aviation General Science IV | \*Basic Electricity (Articulated credit) |
| Aircraft Systems I | Aircraft Reciprocating Engines |
| Aircraft Systems II | Aircraft Turbine Engines |
| Aircraft Systems III | Powerplant Systems I |
| Aircraft Propellers and Inspections | Powerplant Systems II |

All CTE programs of study are designed using this model:

9th Exploratory

10th Core

11th Advanced Course of Study Begins

12th Capstone Experience

All students must meet academic requirements as established by the State Board of Education, and may choose from one of three plans recommended by the state. The current recommended plan for Irving ISD students who wish to enroll in the Aviation Academy is the “ Foundation with Endorsement” plan which requires: 4 credits of English; Professional Communications; 4 credits of Mathematics; 4 credits of Science; 4 credits of Social Studies; 2 credits of Foreign Language; .5 credit for Health; 1 credit for Fine Arts; and 5 elective credits which include endorsement courses. The total required credits for graduation under this plan is (26) twenty six credits. The plan includes options for Pre-AP, AP and dual credits with partnering Community Colleges. Irving ISD strongly encourages all students to enroll in courses that provide college credit. Students may complete dual credit courses online, at the college campus, or with a qualified instructor on the Irving High campus. Dual credit and AP courses are distinguished on the student’s transcript. The colleges look at AP test scores and determine whether the student will receive credit for the course. 2018-2019, 34.5% of Aviation students are enrolled in AP classes. Students enrolled in Aviation receive articulated credit through Spartan College, or the AIM (Aviation Institute of Maintenance) for aviation courses completed at Irving High. Irving High utilizes the college curriculum to teach advanced courses.

1. How do you ensure that CTE instruction and coursework is integrated with core academics? Please provide one, specific example.

Core academics are incorporated in each lesson taught to Aviation students and include historical information, mathematical computations, reading and comprehension, and writing mechanics. Research projects are designed to encourage students to question analytically, the reason the information is needed in the first place and its importance. Reading assignments are designed to get the students to dissect the requested information for the project assigned. This is reinforced with statements like “Why do YOU think this is necessary”, or “what is the *significance* of doing this procedure this way?”, to provide the students with a deeper dive into the curriculum.  Writing assignments are on par with grade level English departments and their writing formats. Dialogue between the core teachers is frequent to ensure our assignments are reinforcing what the core class is striving to teach; for example, MLA or APA formatting. Students write in MLA formats when creating an essay in English classes, and they are taught the APA format in Aviation, to prepare them for college and the aviation industry. Aviation is different with regards to mathematical equations which are non-typical in the core classes, however, the math is consistent, and can be applied directly to the aerodynamic application. In essence, Aviation a its core, reinforces all core concepts due to its history, nostalgia or interests, the need for understanding, and the critical thinking required to process a myriad of information relevant to aviation. Conversely, the core classes are necessary for students to process the information presented through the aviation curriculum.

1. List the opportunities for learners to earn articulate and/or transcript dual enrollment credit across K-12 and postsecondary, such as AP/IB, dual and concurrent enrollment, capstone experiences and/or transcripted credit articulation agreements. (250 word limit)

The Aviation Academy provides a number of opportunities for students enrolled in the program to earn articulated and transcript credit, and encourages AP course enrollment to match the rigor of the Aviation courses offered. Currently, 34.5%of students enrolled in a program of study at the Aviation Academy are AP students. The FAA sets federal guidelines for certification for Aviation maintenance technicians, resulting in stringent requirements for credit and transfer of hours. The Aviation Academy has established an articulation agreement with Spartan College for use of curriculum and Aviation Institute of Maintenance facility and curriculum, allowing the students to earn credits toward their postsecondary degree. This is provided at no-cost to the student, and no other high school in the Dallas/Fort Worth area offers a similar experience. More traditional methods of dual credit include earning college credit with Northlake College which are transferrable to a 4-year university. For students opting for internships, Senior-level practicum courses provide opportunities to work with industry partners to complete challenging real-world projects and to earn industry certifications. Throughout the course of their senior year, students build relationships and gain valuable knowledge in their chosen career path, paving the way to transition into a full-time position upon graduation.

1. Please provide information on **at least three partnerships** with *education institutions and groups* your program of study has, and describe how these partnerships have been built, maintained and sustained over time. Use this space to specifically address the secondary and postsecondary partners that contribute to and maintain this program of study.

|  |  |  |
| --- | --- | --- |
| **Education Partnership Name** | **What role does this partner have in directly supporting your program of study?** | **How many years has this partnership been active, and how was this partnership developed?** |
| Spartan | Spartan hails as one of our newest partners, an articulation agreement with Spartan allows Irving High School to students to receive articulated credit work while still in High School. In a seniority-based industry this jumpstart to a student’s future can allow them to enter the industry earlier and offers a significant cost savings to the students | Spartan has been a partner for 2 years. The industries dire need for viable candidates in the aviation maintenance industry has driven this union. Creating a pipeline for the industry is realizing the need to recruit candidates earlier is necessary to meet the industry need. |
| Aviation Institute of Maintenance | Aviation Institute of Maintenance contributes to the Aviation Academy by recommending programs of study, curriculum development, and informing the Aviation Academy staff of current and changes in the FAA regulations and requirements. AIM also provides the facility for Irving High’s advanced Aviation students. Aviation Academy student are allowed to work in the approved FAA facility at no charge and gain valuable experience in the areas of aircraft operations and maintenance. The facility, tools, classroom space, and aviation hanger are available to the students Monday-Friday throughout the instructional year. The AIM Director has been a member of the Advisory Council for the Aviation Academy for the past 2 years. | Irving’s School of Aviation and the Aviation Institute of Maintenance have had a long-standing relationship of 6 years built on mutual trust and the desire to create a unique experience for our students while generating strong industry solutions for a growing demand in the workforce. With the proximity to our campus, the School of Aviation Science places this alliance in high regard with the success of the overall aviation program at Irving High School. |
| Tarrant County College | Since the inception of the Irving High Schools School of Aviation Science in 2012, Tarrant County College has provided a great transition for further education from classes the completed at Irving High. The curriculum completed at in the Aviation Technology program at Irving High prepares students to transition smoothly with the knowledge they have learned into the college environment. Dual and AP core classes are accepted at Tarrant County College and applied to the degree plan. | Tarrant County College has been a partner for more than 6 years. The partnership developed to meet the mutual need of training students to meet the demand of the aviation industry in the Dallas-Ft Worth metro area. |

# **ALIGNMENT WITH INDUSTRY AND BUSINESS NEEDS**

1. Describe how your program of study is aligned with the needs of the workforce and industry in your community. Make sure to include information on how the program of study helps meet workforce demand identified by business and industry. What labor market data does your program of study use to align to workforce needs? (250 word limit)

Aviation has a tremendous impact on North Texas and is a major economic driver. The Dallas-Ft Worth region is home to over three-hundred (300) aerospace and aviation employers and more than four-hundred aviation facilities who employ more than 45,000 air transportation employees, with 6 in 10 air transportation jobs being located in North Texas. The Aviation Academy helps meet workforce demand by Labor Statistics’ employment projections, including: data from the North Central Texas Council of Governments, and Interlink- the North Texas Commission on Workforce Readiness data and research. As a HUB for major airlines such as American, Southwest, Delta and Envoy, an aging population within the aviation industry has created a critical shortage of incoming workers, but has hit pilots and technicians especially hard. Employment growth is expected to be driven by technological advances and the need for additional pilots and aircraft technicians, as well as general operations personnel. The Aviation Academy at Irving High School is creating a pipeline to assist industry in closing the workforce gaps. Through projections there will be a growing need of certified personnel over the next decade number from 1990-4500 per year. These numbers are consistent with airline expectations for hiring over this same period.

1. Are ALL learners in the program of study required to participate in a work-based learning opportunity? Please describe the work-based learning opportunities available to learners who participate in this program of study. (250 word limit)

All seniors complete a Practicum or advanced coursework, which allows the students to acquire real-world hands-on training and education and to experience real world programs and industry equipment up close. One example is the Aviation Tech Maintenance program, where students attend the Aviation Institute of Maintenance daily as part of their curriculum. This articulation with AIM allows the students in the Aviation Tech program of study program to venture to the Aviation Institute of Maintenance where they are exposed to real-world aircraft maintenance procedures and skills. This allows the students to split their day with traditional high school classes and gain real world knowledge in a real-life industry setting and safe training environment. Should students decide to continue their post-secondary education with AIM, part of their time spent at AIM their senior year allows for credits transfer to the AIM Aviation Maintenance program. Students enrolled in the Aviation Flight program work toward completion of the Ground School certification and other entry-level certifications required within the industry. Students in this program of study research, develop, and compete in the Real World Design Challenge, which offers the opportunity to develop a prototype using industry software that will solve a real-world problem in the aviation/aerospace industry. Students in the program work with mentors, engage in field-based activities and have the opportunity to participate in the ACE Camp which allows them to experience first-hand the various sectors of the industry, including, air traffic control, cargo, field maintenance, operations, and more.

1. Please list the industry-recognized credentials/certifications/licenses offered/required. If your program of study does not include industry-based credentials/certifications, please explain why. (200 word limit)

|  |  |
| --- | --- |
| **Offered** | **Required** |
|  | **5 Hour OSHA Start Safe Stay Safe Workplace Safety** Hour OSHA Start Safe is part of the required curriculum for all freshman Aviation students at Irving High School. Coupled with real life instruction, helps to manifest a strong sense of safety at an earlier age with the hope of creating a safer industry for the future. |
| Forklift certification | **10 OSHA Workplace safety**, the goal here is to give the students, any student within any of our Junior and Senior the opportunity to earn a usable, viable industry certification which can assist them in finding and securing employment from their Junior summer and beyond their graduation date. |
| FAA Part 107- FAA Part 107 Certification allows the student to fly drones in airspace and be commercially licensed to fly drone equipment |  |
| FAA Line of Sight- Allows the students to fly unmanned aircraft within the visual line of sight during operations |  |
| FAA Drone safety- Teaches students about the operation safety of drones in pre-flight and flight operations |  |

1. Please provide information **at least three** *business, industry and/or labor* partnerships your program of study has, and describe how these partnerships have been built, maintained and sustained over time.

|  |  |  |
| --- | --- | --- |
| **Business/Industry Name** | **What role does this partner have in directly supporting your program of study?** | **How many years has this partnership been active, and how was this partnership developed?** |
| Interlink | Interlink provides up-to-date regional labor market information each year, which identifies high-demand, high-wage opportunities in North Central Texas. Irving ISD Career and Technical Education is a member of Interlink, where the CTE Director is a member of the Executive Board. | Interlink, a regional quality workforce planning organization, founded in 1987, provides on-going labor market information and resources, and has served as a member of the School of Aviation Task Force and Advisory Board since the inception of the program. |
| NCTCOG- North Central Texas Council of Governments | In 2012 NCTCOG donated a Microsoft flight simulator to the program which is used by students to study the basics of navigation and flight operations. NCTCOG is a strong partner and provides current information on future aviation events and guidance on new regulations that affect the operation of manned and unmanned aircraft in an urban environment. The NCTCOG provides extensive resources and curriculum to the program. | Partner since the inception of the School of Aviation in 2012. Member of the original Task Force that developed the framework for the School of Aviation and has been a member of the Advisory Board for both the School of Aviation and the District Advisory Board since 2012. |
| DFW International Airport | DFW International supports the School of Aviation by allowing the students and instructors to visit an operational facility that continues to grow in scope and size. Students have been able to view the operational hangers, runways, tower facility, and the emergency operations center. Students have also been exposed to the Public Safety aspects of operating a major international airport. | Dallas Fort Worth International Airport has been a supporter of the Irving High School of Aviation from its inception (2012) by serving on the Task Force team, Advisory Board and providing resources, including field-based activities and speakers for the School of Aviation. Partner of the Year in |

1. Please feel free to use the space below to share any other information or evidence of success of your program of study and the learners who participate. (Optional)

Irving Independent School District is located in Irving, Texas, and is known as a “best kept secret” among parents, community partners, and business partners due to its location, size and breadth of educational opportunities available to students, which prepares students for both college and career. Career and Technical Education programs in Irving promote a rigorous and challenging sequence of courses that prepare students for the global workforce of the 21st Century, which requires specialized skills and technical expertise along with advanced academic programs. The School of Aviation opened its doors to students in 2012 after spending more than a year working closely with industry partners, counselors, teachers, parents and administrators who served as members of a Task Force, assigned with the responsibility of researching and developing a new STEM Academy for the Irving High School campus. Points of Pride include:

* Real-World Design Challenge Governor’s Cup (1st Place State of Texas) 2018
* Real-World Design Challenge “Best New Team” National Finals
* Student receives $5000 Aircraft Owners and pilots Association Scholarship – Yanelli Escobar received the scholarship in 2017
* iCreate Next Generation Showcase Aviation selected as Finalist in 2017, 2018
* 8 School of Aviation Students inducted in the National Technical Honor Society 2018
* Skills USA State Finalists Aviation Tech 2017, 2018
* ACE Flight Camp (2012, 2013, 2014, 2015, 2016, 2017, 2018)
* DFW Transpiration EXO (2015, 2016, 2017, 2018)
* Al Brooks Named Teacher of the Year 2015 by Seidel Chapter of the Air Force Association
* Wesley Taylor-Vincent National Finalist Redbird Oshkosh Flight Simulator CompetitionReal-

1. If applicable, please provide more detail on any partnerships your program of study has that have not been mentioned already. This includes community groups, non-profits, volunteer organizations, etc. Describe how these partnerships have been built, maintained and sustained over time. (Optional)

|  |  |  |
| --- | --- | --- |
| **Additional Partnerships** | **What role does this partner have in directly supporting your program of study?** | **How many years has this partnership been active, and how was this partnership developed?** |
| Frontiers of Flight Museum | The museum loaned the School of Aviation displays and donated equipment for use by Aviation Academy students. The museum opens their doors annually for a field trip, allowing students to see the museum and learn about aviation history at no cost. | The museum has worked with the Academy since 2012; teachers visited multiple locations and explained the purpose and vision of our program. |
| ACE – Organization of Black Aerospace Professionals | Through the help support of the ACE Foundation each year, an “End of Year” ACE Aviation camp is sponsored for all Aviation students. The students who attend this one-week camp, are exposed to several aviation facilities and programs. The students are allowed a “behind the scenes” look at multiple facilities, including the DFW Grounds Operation Tower, and fire facilities at DFW airport. At the conclusion of the camp, student students are offered a free orientation ride in a Cessna 172. | From the School of Aviation inception in 2012. Worked with the organization to provide students with relevant experiences through an ACE sponsored summer camp for Aviation students. The camp has been offered each summer since 2012. |
| Envoy | Envoy pilots provide up-to-date information regarding the pilot profession. Through site visits and guest speakers students are exposed to industry standards and practices. Envoy has been an industry partner for the past two years serving on the School of Aviation Science Advisory Board. For the past two years Envoy has extended opportunities to the students in The School of Aviation Science to experience the aviation field through the eyes of pilots as guest speakers in the classroom. | Envoy is owned by American Airlines and is the largest regional carrier for American Airlines. Envoy has been a partner for 6 years and has recently agreed to become The School of Aviation Sciences PREMIER PARTNER. This partnership will increase the advantages for both maintenance and flight, by allowing more hands-on experiences and internships at the Dallas-Ft Worth facilities. |

# **SUBMIT YOUR APPLICATION**

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* Fill out this application.
* Once you have finished, complete [this form](https://careertech.org/2019-excellence-action-application) and upload the following:
* Your full application saved as a Word document (.docx)
* All of your supplemental documents or evidence consolidated as one PDF document.

**THANK YOU!**

Thank you for completing this application! You will know the status of your application by January 22, 2019. The programs of study will be evaluated based on their effective leveraging of partnerships, alignment to rigorous and relevant college- and career-ready expectations, clear progression of knowledge and skills across secondary and postsecondary systems, integration of successful career guidance/advisement, and key indicators of learner success.

Don’t forget to use the Excellence in Action award submission checklist to make sure you’ve completed your application in its entirety.

We look forward to learning more about your program!

For questions, concerns please contact [awards@careertech.org](mailto:awards@careertech.org).