# **BACKGROUND INFORMATION**

1. Program of study name: Information Technology
2. Point of Contact
 Name: Bart Taylor

Email Address: btaylor@csisd.org

Phone Number: 979-492-8872
Address: 1801 Harvey Mitchell Pkwy South

 College Station, TX 77840

1. Applicant’s School/College: A&M Consolidated 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

 [x]  Information Technology Career Cluster

 [ ]  Law, Public Safety, Corrections & Security Career Cluster

 [ ]  Manufacturing Career Cluster

 [ ]  Marketing Career Cluster

 [ ]  Science, Technology, Engineering & Mathematics Career Cluster

 [ ]  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 Information Technology courses at A&M Consolidated High School are designed to prepare students with a foundation of skills that include computer hardware, software, coding, networking, and cyber security. The courses have been offered since the 1980’s, starting with computer programming, then branching out to courses that include Principles of Information Technology, Computer Maintenance Honors, Computer Programming II Honors, Telecommunications and Networking Honors, Computer Technician Honors and Research and Solutions in Information Technology Honors. In addition to offering the internationally recognized CompTIA A+, Network+ and Security+ certifications, a majority of the Information Technology courses are offered as Dual Credit with Blinn College, as well as Computer Programming offered as Advanced Placement.

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.

 [ ]  Urban

 [x]  Suburban

 [ ]  Rural

 [ ]  Other

# **STUDENT 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 student achievement will not be eligible for consideration. (100 word limit)

The Information Technology program at A&M Consolidated High School consists of student ranging from Freshman to Seniors. The program of study is designed to allow for students to pursue introductory level courses into advanced level courses. The most recent data shows that the majority of the students taking IT courses are male, although the strong efforts to recruit females into the cluster.

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

|  |  |  |  |
| --- | --- | --- | --- |
| SCHOOL YEAR | 2014-15 | 2015-16 | 2016-17 |
| **SECONDARY-LEVEL DATA** |
| **Total number of students served by your program of study**  | 267 | 301 | 288 |
| % male students  | 79.7% | 74.4% | 82.1% |
| % female students  | 21.3% | 25.6% | 17.9% |
| % minority students | 41.9% | 43.9% | 42.7% |
| % low-income students  | 26.6% | 28.6% | 31.7% |
| % students with disabilities  | 9.7% | 10.6% | 9.8% |
| % English language learners | 3.7% | 2.3% | 2.6% |
| Other relevant *demographic* data  |  |  |  |
| % of students who earned postsecondary credit (dual enrollment, AP, etc.)  | 32.6% | 37.5% | 42.5% |
| % of students who earned an industry-recognized credential  | 54.2% | 92.2% | 96.4% |
| % of students who participated in work-based learning | 0% | 0% | 0% |
| % of seniors who graduated high school (who were eligible/seniors)  | 98.1% | 95% | 96% |
| % of graduates who enrolled in postsecondary education (who were eligible/seniors)  | n/a | n/a | n/a |
| % of graduates who entered the workplace and/or military (who were eligible/seniors)  | n/a | n/a | n/a |
| **POSTSECONDARY-LEVEL DATA** |
| **Total number of students served by your program of study**  | 43 | 37 | 40 |
| % male students  | 97.7% | 94.6% | 92.5% |
| % female students  | 2.3% | 5.4% | 7.5% |
| % minority students | 25.5% | 32.4% | 40% |
| % low-income students  | 25.5% | 27% | 32.5% |
| % students with disabilities  | 4.7% | 5.4% | 7.5% |
| % English language learners | 5.4% | 8.1% | 2.5% |
| Other relevant *demographic* data  |  |  |  |
| % of students who completed postsecondary/earned a degree or certificate (who were eligible)  | 100% | 100% | 100% |
| % of students who earned an industry-recognized credential (who were eligible)  | 100% | 100% | 100% |
| % of graduates who entered the workplace and/or military (who were eligible)  | 100% | 100% | 100% |
| % of graduates who transitioned to further postsecondary education (who were eligible) |  |  |  |

1. Provide links to the source of the above data. If the links are not publicly accessible, please explain the source of the data.

The data was retrieved directly from our CTE Director and the counseling department. You can email Karen Ferguson for verification, kferguson@csisd.org and Shannon Jones, sjones@csisd.org.

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

All students are welcomed and encouraged to join our IT program. Since our school is part of the community that surrounds Texas A&M University, diversity in the student population is very evident. Our IT program is dedicated to educating and empowering students to become confident, resourceful, lifelong learners who are prepared for challenges beyond high school. Students of our program will know the value of giving more than they take, will be responsible for their own actions, and will know that they are an important part of our school community. Our program provides students will all of the necessary equipment to be successful in the program. There are no costs to the students except for certification testing, where there are scholarships for student aid. We also strive to be multi-cultural and celebrate the diversity within the program. All students also have access to join our CTSO – SkillsUSA.

1. If applicable, what strategies or technologies do you use to close access gaps? (e.g. integrated digital learning, virtual work based learning.)

If an effort to class access gaps, all students are provided the necessary equipment to be successful in and out of the classroom. When needed, students have access to laptops, or more likely, Raspberry Pi computers to take home. The only barrier that we have not been able to overcome is when students do not have internet access at home. We offer after school time, tutorials, in school tutorials and extra-curricular time, however we cannot find a grant to help us provide internet at our student’s homes.
2. What activities does your school or institution do to recruit elementary, middle, high school students and/or adult learners into the program of study? Please provide examples. (150 word limit)

Currently we host our 8th Grade Tours where we invite the entire 8th grade to come visit the high school CTE programs. Students are split into small groups, and they are taken on a tour of all CTE courses offered. This allows them to physically see the room and laboratories, as well as hear from the students within these courses. We also host a “Welcome to the Jungle” night, where all community members, students and parents are invited to the school to visit the CTE programs and to meet the instructors. Here, all of the corresponding CTSOs will be set up to visit and work with incoming Freshman to showcase the opportunities in their clubs.
3. 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)

We participate in SkillsUSA, and have been members since 2001. We have placed within the top 10 in the nation in varying contests every year since 2003. For the past three years, SkillsUSA hosts the Chapter Excellence Program. We won the top chapter in 2016 and 2017.

1. Describe how career guidance/advisement is integrated into your program of study to support students’ completion of the program of study and entry into additional education/training and/or a successful career. 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)

I believe there should not be a separation between college and career readiness. What I prepare my students for is life readiness. I encourage my students to follow what will best prepare them for the world of work; that could either be entering the military, college, or perhaps straight to the workforce through IT certifications. I give high merits to all avenues. We have several partnerships with local business, and well as strong relationships with 4-year and 2-year colleges, especially with our dual credit program with Blinn College. One of our strongest recruitments tools is from our alumni program. Many students come back to share their experiences from college, trade schools, military careers or just what they are doing in the IT industry. They host a website to recruit, post resumes, post job openings and more. Hearing from former students adds relevancy to what they are doing in class and students become aware of the strong IT program that they are in, as well as the strong network of former student before them. The career paths from the industry certifications students obtain also opens the doors to many careers in IT.

# **COLLEGE- AND CAREER-READY STANDARDS/EXPECTATIONS**

1. Please describe how your program of study was developed and how it ensures students are academically and technically prepared for postsecondary education and careers. Please also address the following:
	1. How were employers involved in the development and/or 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 students 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)

An Advisory committee panel is created every year that includes community members, industry members, Blinn College Representatives, parents, students, special needs representatives, counselors and school administration. The advisory committee meets twice a year and the goal of the advisory is to assess the curriculum and equipment of the CTE programs, as well as the needs of the CTE programs and their value into the surrounding community. In addition to the advisory committee, our IT program is partnered with many local business and industry, such as TEEX, FiberTown, Texas A&M IT, Texas Digital, HP, Innovation Underground, ResponderX and more, to allow for continual support for the IT industry in the community.

In the late 1990’s, the need for Information Technology courses was evident. Our school district recognized this need, and started to develop the IT program. Computer Programming was offered since the 80’s, however additional courses started in 1996. Intro to Computer Maintenance, and Computer Maintenance was added, and the goal of the Computer Maintenance course was to have students earn the Internationally recognized CompTIA A+ Certification. In 2000, the IT program gained in popularity among students, and the program started to increase the course offerings. Telecommunications and Networking was added paired with the goal of earning the CompTIA Network+ certification. In the mid-2000’s, Web Page Design was added, and we allowed students to enroll in Research and Solutions in IT, where students could work on large scale IT projects with mentors in their community. In 2009, Blinn College came to our IT program and wanted to articulate the Computer Maintenance course and offer it as dual credit. Since then, the Web Page Design course became dual credit, the Telecommunications and Networking course became dual credit, and most recently, the Computer Technician capstone course became dual credit with the Cyber Security program. The dual credit program becomes an entry point for students pursuing higher education, and helps put an emphasis on IT. Since 2000, the IT program has helped over 130 students earn their A+ certifications, over 25 students earn their Network+ certifications and 2 have earned their Security+ certifications. The IT curriculum also has student take the AP Computer Science test with an overall average score of 4.125 out of 5.

1. Which technical, academic and/or employability skill 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 | <https://tea.texas.gov/index2.aspx?id=6148><https://tea.texas.gov/student.assessment/staar/> Academically we look to see where students struggle in the standardized testing. The needs change from year to year on where our focus should support. The academic standards that we support in CTE are included in the STAAR end of course exams in Texas. Currently, we are focusing on 9th grade and 10th grade mathematics, with an emphasis on males.  |
| Career Cluster or Technical Standards | <http://ritter.tea.state.tx.us/rules/tac/chapter130><http://ritter.tea.state.tx.us/rules/tac/chapter130/ch130k.html>The review and revision process of the new 2017-2018 CTE TEKS began in June 2014. The lead IT instructor, Bart Taylor, was on this committee. The State Board of Education’s (SBOE) multi-phase adoption launched with the first group of CTE courses it adopted in April 2015 and ended with the last group of CTE courses adopted in September 2015. The new stanards are now live for the 2017-2018 school year. Key changes in the newly adopted TEKS include 77 new courses, new lab-based courses to allow students more flexibility to satisfy graduation requirements, employability skills included in all CTE courses, elimination of ranges of credit, course title changes, and practicum course changes. The overall objective for the TEKS revisions is to provide students with the knowledge and skills to be successful in the modern economy. The revised knowledge and skills reflect current career expectations and include demonstrations of learning. |
| Employability Standards  | <http://ritter.tea.state.tx.us/rules/tac/chapter130/ch130k.html>Each course revision of the new TEKS includes essential employability skills as well as college and career readiness standards designed to support students who are pursuing careers in IT. Employability skills identified as essential to the IT career cluster include communication, collaboration, professionalism, work ethic, time management, and leadership skills. Extended learning opportunities, including work-based learning experiences and participation in career and technical student organizations (CTSOs), also develop these skills. |
| Other |  |

# **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, and explain how your program of study ensures students 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](http://careertech.org/sites/default/files/PlanStudy-CareerCluster-AG_0.pdf) of the course sequence in lieu of filling out the chart below.

Course Name: **Principles of Information Technology**

Number of Credits: 1 credit, Meets for 1 hours a day, Fall and Spring semesters

Recommended Grades: 9-11

Prerequisite(s): n/a

Honors level: no

Additional Information: This course introduces students to IT through a curriculum that includes an overview of software, operating systems, computer hardware, networking, programming, internet safety, and ethics.

Suggested Certifications: CompTIA STRATA or IC3

Course Name: **Algebra 1**

Number of Credits: 1 credit, Meets for 1 hours a day, Fall and Spring semesters

Recommended Grades: 9-11

Honors level: yes in 8th grade

Additional Information: This course is needed as a pre-req for Programming 1. Algebra 1 can be taken in 8th grade, so students can begin programming in 9th grade.

Course Name: **Computer Programming I**

Number of Credits: 1 credit, Meets for 1 hours a day, Fall and Spring semesters

Recommended Grades: 9-12

Recommended Prerequisite(s): Principles of Information Technology or Algebra I.

Honors level: Yes

Additional Information: This course introduces students to foundations in computer programming. In Computer Programming, students practice procedural, object oriented, and event-driven programming, as well as algorithms and data structures. Students will develop problem solving and team building skills throughout the year. Java is the main programming language. Programming careers and employment opportunities will also be explored.

Suggested Certifications: AP Computer Science Exam

Course Name: **Computer Maintenance**

Number of Credits: 1 credit, Meets for 1 hours a day, Fall and Spring semesters

Recommended Grades: 10-12

Recommended Prerequisite(s): Principles of Information Technology

Recommended Corequisite(s): **Computer Maintenance Lab**

Honors level: Yes

Dual Credit with Blinn College – ITSC 1325, 3 College Credits

Additional Information: This course is offered with a recommended corequisite one credit lab. This course offers an in depth understanding of the material, supported by hands-on laboratory projects. Students will apply critical thinking skills in understanding and synthesizing computer hardware, motherboard architecture, electronics theory, hardware components, operating systems, and fundamental networking.

Suggested Certifications: CompTIA A+ or TestOut PC Pro

Course Name: **Computer Maintenance Lab**

Number of Credits: 1 credit, Meets for 1 hours a day, Fall and Spring semesters

Recommended Grades: 10-12

Recommended Prerequisite(s): Principles of Information Technology

Recommended Corequisite(s): **Computer Maintenance**

Honors level: Yes

Dual Credit with Blinn College – ITSC 1325, 3 College Credits

Additional Information: This course is offered with a recommended corequisite one credit lab. This course offers an in depth understanding of the material, supported by hands-on laboratory projects. Students will apply critical thinking skills in understanding and synthesizing computer hardware, motherboard architecture, electronics theory, hardware components, operating systems, and fundamental networking.

Suggested Certifications: CompTIA A+ or TestOut PC Pro

Course Name: Computer **Programming II**

Number of Credits: 1 credit, Meets for 1 hours a day, Fall and Spring semesters

Recommended Grades: 10-12

Recommended Prerequisite(s): Principles of Information Technology or Computer Programming I

Honors level: Yes

Additional Information: In this course, students will address more complex problems and develop advanced programming solutions, expanding their knowledge of object oriented programming techniques and concepts. Emphasis will be placed on data structures, recursion, inheritance, interfaces, abstract classes, search methods, and sorting algorithms

Suggested Certifications: AP Computer Science Exam

Course Name: **Computer Networking**

Number of Credits: 1 credit, Meets for 1 hours a day, Fall and Spring semesters

Recommended Grades: 11-12

Recommended Corequisite(s): **Computer Networking Lab**

Honors level: Yes

Dual Credit with Blinn College – ITNW 1325, 3 College Credits

Additional Information: This course provides students with an in-depth understanding of the material, supported by hands-on laboratory projects. Student will apply critical thinking skills in understanding and synthesizing Internet Protocol (IP) addressing, Open System Interconnection (OSI) model, routing technologies, network architecture and implementation, network troubleshooting, cabling specifications and rack implementation, network security, and system hardening.

Suggested Certifications: CompTIA Network+ or TestOut Network Pro

Course Name: **Computer Networking Lab**

Number of Credits: 1 credit, Meets for 1 hours a day, Fall and Spring semesters

Recommended Grades: 11-12

Recommended Corequisite(s): **Computer Networking**

Honors level: Yes

Dual Credit with Blinn College – ITNW 1325, 3 College Credits

Additional Information: This course provides students with an in-depth understanding of the material, supported by hands-on laboratory projects. Student will apply critical thinking skills in understanding and synthesizing Internet Protocol (IP) addressing, Open System Interconnection (OSI) model, routing technologies, network architecture and implementation, network troubleshooting, cabling specifications and rack implementation, network security, and system hardening.

Suggested Certifications: CompTIA Network+ or TestOut Network Pro

Course Name: **Web Technologies**

Number of Credits: 1 credit, Meets for 1 hours a day, Fall and Spring semesters

Recommended Grades: 11-12

Honors level: No

Dual Credit with Blinn College – IMED 1316 and IMED 2316, 6 College Credits

Recommended Prerequisite(s): Principles of Information Technology

Additional Information: This course is designed to introduce students to web development technology through a curriculum that includes internet connectivity concepts, internet ethics, and principles and elements of design (Hyper Text Markup Language—HTML).

Course Name: **Computer Technician Practicum**

Number of Credits: 2 credits, Meets for 2 hours a day, Fall and Spring semesters

Recommended Grades: 11-12

Recommended Prerequisite(s): Principles of Information Technology, Computer Maintenance, Computer Maintenance Lab, Networking, and Networking Lab

Honors level: Yes

Dual Credit with Blinn College – ITSY 1342, 3 College Credits

Additional Information: Innovation is the driving force behind this course designed for students who wish to pursue advanced information technology topics, such as high-level operating systems, cyber security, and system protection. Students will lead projects in a research rich environment where they will apply the theories and knowledge learned in Computer Maintenance, Programming I and II, and Networking. Students will have project based assessments and work with industry mentors. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

Suggested Certifications: CompTIA A+, Network+, Security+ or TestOut series certifications

Course Name: **Research and Solutions in IT**

Number of Credits: 1-2 credits, Meets for 1 to 2 hours a day, Fall and Spring semesters

Recommended Grades: 12

Recommended Prerequisite(s): Principles of Information Technology, Computer Maintenance, Computer Honors level: Yes

Additional Information: This course is designed to allow upper level student the time to work on industry standard IT projects with an outside mentor. Students are required to find a mentor and develop a project that can be researched and implanted during the school year.

Suggested Certifications: CompTIA A+, Network+, Security+ or TestOut series certifications



1. How do you ensure that CTE instruction and coursework is integrated with core academics?

Professional development time is provided at the beginning of each school year. We host a session to disaggregate the previous year’s data to look at areas of needed improvement. In CTE, we look to support the academic areas that are in need, and we are allowed to partner and attend that academic group’s department meetings to help plan support for the year. For example, when 10th grade English was in need of support, we learned how to incorporate more writing enhanced assignments in our CTE courses that would reflect the type of questions students could see on the standardized test. We also format our test to appear like the standardized test question whenever possible. This year in Math, we are looking to add support by reference mathematic whenever possible, and to support with reminders of the mathematics content.

1. List the opportunities for students 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)

Our Computer Programming 1&2 courses are both honors level, and students have the opportunity to earn college credit through the AP Computer Science exams. We have several dual credit opportunities in the IT courses through Blinn College. The first dual credit CTE course at our high school started in 2009 with the IT course, Computer Maintenance, where students earn 3 credit hours for ITSC 1325. As the course grew, and level of excellence grew, we spread the dual credit. Webpage Design is articulated for two Blinn Course, so students can earn 6 college credits, IMED 1316 and IMED 2316, and Telecommunications and Networking is 3 credits as ITNW 1325 and most recently the Computer Technician course has become articulated with Blinn College as ITSY 1342 and students can earn 3 college credits in Cyber Security. In addition, students have the ability to earn professional IT certifications. Within the Computer Maintenance course, students can earn the Testout PC Pro certification, as well as the internationally recognized CompTIA A+ certification. In Telecommunications and Networking, students can earn the Testout Network Pro certification, as well as the internationally recognized CompTIA Network+ certification. In the Computer Technician course, students can earn the Testout Security Pro certification, as well as the internationally recognized CompTIA Security+ certification.

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?** |
| Blinn College – Computer Information Technology Department | The Blinn College CIT program has played an active role on our IT Advisory committee. They offer feedback in the curriculum and equipment of the classroom. In addition, they offer incentives for students to enroll in the Blinn College CIT program, which makes for a great partnership for our IT students to earn an Associate’s Degree within a year of high school graduation. Most of our current IT courses are aligned to earn dual credit from Blinn College.  | Since 2009. Blinn College first approached our program to form the articulation because they knew about its level of excellence in the community and high certification rates. We have held this strong partnership since participating in both campus’s advisory committees.  |
| TEEX – Texas Engineering and Extension Services. | TEEX has played an active role on our IT Advisory committee. They offer feedback in the curriculum and equipment of the classroom. In addition, they offer summer IT camps for our students that give them supplemental learning to our curriculum. They also offer field trips to places such as Rack Space, in San Antonio, TX, and they buy all of our students Raspberry Pis to play with at these camps. They have also offered presentations to students, and for staff development for IT teachers.  | Since 2012. We approached TEEX initially to help offer professional development at our summer conference. Since offering training, we have partnered with them in bringing a more robust curriculum to our courses, and adding relevancy to our work.  |
| Airforce Cyber Patriot Program | Students are able to learn about career in Cyber Security as they participate in the Airforce’s Cyber Patriot Program. They get to work on system security, and system hardening, as well as network administration. They can also network with other students in the program across the United States.  | Since 2013. I enrolled in the Cyber Patriot program once I heard about the opportunity. Since 2013, we have had successful participation, and student are now pursuing career in Cyber Securiy. |
| Innovation Underground | Innovation Underground is a start up, innovation incubator in our neighboring city of Bryan. Through the program, we can work directly with the College of Computer Science Engineering at Texas A&M University. This partnership leads to student presentations, and many internships in software startup companies.  | Since 2014. I was invited by the founder, Jose Quintana to tour their facility and learn about the new innovations happening within this group. Since then, we have partnered on several software products, and created numerous internships for students.  |

# **ALIGNMENT WITH INDUSTRY AND BUSINESS NEEDS**

1. Please 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. If applicable, what labor market data does your program of study use to align to workforce needs? (250 word limit)

Students in the IT programs earn CompTIA A+, Network+, Security+, and Testout PC Pro, Network Pro and Security Pro certifications. Every student that has these certifications on their resume can earn IT jobs within the community almost without a job interview. The demand for high quality IT workers are very high, and a foundation in IT skills are going to become fundamental when looking at the job market in the near future. We are currently in the Industrial Revolution 4.0, and with an outlook of an economy that will be flooded with Automation and Artificial Intelligence, the IT course framework will only increase in importance. We currently host field trips to all of the local IT companies is town, so all local industries are very aware and familiar with the experience of the students in our IT programs. On the flip side, these trips allow for all student to witness and see the available IT businesses in town where they can establish a career. Our IT program also aligns with the IT needs of the local Blinn College and Texas A&M University. Many students leave this program to work full time o part time support these educational institutions.

1. Are ALL students in the program of study required to participate in a work-based learning opportunity? YES or NO.

No.

1. Please describe the work-based learning opportunities available to students who participate in this program of study. (250 word limit)

Students have work based opportunities with the following local industry partners: Reynolds and Reynolds, FiberTown, Texas A&M University IT Systems, Blinn College IT, Systek, AgniTek, Innovation Underground, ResponderX, TEEX and our own College Station ISD Technology Department. Students can enter into interns as well as many part time job offerings. Many have turned part time jobs into full time careers. In addition, students present their current IT projects and work at a local Software Developers meeting hosted by the Innovation Underground group in Bryan, TX. This allows students to harness soft skills, while presenting to potential; employers while showcasing theirs skills in what they have learned in the coursework.

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**  |
| SkillsUSA Essentials Customer Service Certification | Yes |
| Testout PC Pro Certification | Yes |
| Testout Network Pro Certification | Yes |
| Testout Security Pro Certification | Yes |
| CompTIA A+ Certification | No |
| CompTIA A+ Certification | No |
| CompTIA A+ Certification | No |
| Computer Science AP Exam | No |
| OSHA certifications | No |

1. Please describe how you ensure the instructors teaching this program of study keep up-to-date on advancements in the workplace, such as participating in externships and/or requirements to have current industry credentials. (100 word limit)

Our IT teachers attend professional development training offered through TIVA, the Trade and Industrial Vocational Association. The teachers attend a 3 day mid-winter workshop every January and attend a week long summer conference. Each summer conference typically entails IT certification training focusing on strengthening the current IT curriculums and supporting teachers in certification. The teachers also get professional networking through SkillsUSA, and conference training at SkillsUSA state and National events. In addition, each teacher maintains their own CompTIA A+, Network+ and Security+ Certifications.

1. Please provide information on **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?** |
|  IT Recycling Group | Twice a year, our IT program hosts a community wide Electronics recycling community service events. The students in the program spend all day collecting old electronics waste so that it can be recycled properly instead of being sent to a land fill, where it becomes hazardous waste. The IT Recycling Group is the company that makes this event possible. They drive in from out of town to help students in the collection process, and they are the company that handles the recycling. They also provide students with a report of how much waste was recycled and picked up. | The partnership started in 2011, and the idea was created by one of the IT teachers. He reached out to the company to make this happen.  |
| Reynolds and Reynolds | Reynolds and Reynolds has played a large part in the initial years of the establishment of the IT program. From field trips, to help with technology and curriculum ideas, Reynolds and Reynolds has been a part of our IT equation. | The partnership started in 2002 when the IT courses started to bring the classes there on a career field trip. Since then, the field trips continue, as well as many students working there part time.  |
| AgniTek | AgniTek, formerly known as MicroAge, has been one of the leading IT companies in our community. Our IT students used to have to take their certifications at AgniTek, but we have partnered with them on an increasing basis. We have invited their techs to come and give guest lectures, and we have even partnered with them on computer builds, and technology installations, including our own hallway display monitors.  | The partnership with AgniTek has been established since 2002. Although we no longer need them for certification testing, they are a huge resource for internship, job shadows and more.  |
| Systek | Systek is a rather new computer repair store in our community, however they partnership has been great. We work with them on student interns and part time work. Some students have moved on to full time work there. We also rely on them for course feedback on our advisory committee.  | We have partnered with Systek since 2011, and students find internship and part time work with their company.  |
| Responder X | ResponderX is a company that was started by a alumni of our IT program. They create technology to help look after the safety of our first responders, fire fighters and more. They create biometric and location monitoring devices, to track the safety of first responders on a disaster site. ResponderX has supported our IT program with mentorship, advisory feedback, and most importantly student internships.  | We have partnered with ResponderX since 2015, and students find internship work with their company. |

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 students who participate. (Optional)

Our IT program continues to grow and have great success for the students. In addition to workplace and certification success, the IT students are also having leadership success. The IT program got involved in the SkillsUSA leadership arena in 2010 where they started running students for district office. Since then, they have held a district office position every year, including several district presidents. This also led to students running for the state office positions, and we have had a state officer every year since 2013, with this past year having our first state President.

SkillsUSA has also began a new program called the Chapter Excellence Program where they look to recognize excellent chapter across the nation in Personal, Workplace and Technical skills. 2015 was the first year this program took place, and our school chapter earned the highest level as a Models of Excellence Gold Chapter, putting us within the top 24 chapters in the nation. The following year in 2016, we again earned the Models of Excellence level, but this year we took home the highest prize, and was awarded the #1 chapter in the nation in Workplace. This past summer in 2017, we again were Models of Excellence finalist, and for the second year, we were again awarded the #1 chapter in the nation in Technical skills.

Currently the IT chapter has won a $25,000 grant from Lowes to utilize their IT skills in a community service project. The grant was designed to support a local organization called Family Promise that allows for the SkillsUSA students to help establish, and connect a new facility that has been donated to this organization. Family Promise is a local response to the national homeless crisis where they work to help homeless families build new lives. Family Promise supports homeless families by housing them in different church congregations, changing church locations every week; however this past year, Family Promise has been awarded a building from our sister city of Bryan, TX to allow Family Promise to renovate a new facility and no longer have to rely on churches for housing. The goal of our SkillsUSA chapter will be to utilize our skills and support the new Family Promise facility by installing and creating their entire networking and security infrastructure. Students will build computers, run networking and security cables, configure routers, configure wifi, configure content filtering, setup printer services, configure security cameras, establish a networking domain, and assemble furniture and more. The goal will be to create and configure the entire network for the Family Promise building in order for the organization to be connected to the internet, to allow for the volunteers to have a working office space, and most importantly to allow for computing needs for homeless families to search and apply for jobs, work on resumes and for the children to work on school work. The grant project is poised to make a huge impact on the Bryan-College Station community and teach everyone involved about the power of devoting one’s talents and skills to the benefit and welfare of their community.

The IT program is simply very robust and has served hundreds of students, and guided them to career in IT for many years. The program has continued to grow, and one of the current IT teachers is a former student from with this very program.

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?** |
| Lowes | We partner with our local Lowes for several volunteer service projects throughout the year. The most recent project happened in October where we coordinated a day of Safety, and hosted an IT booth to teach the community about Cyber Safety. | Since 2014, and they were approached by the student in the IT program.  |
| Museum of the American GI | We partner with this museum of community service, as well as an outlet to have all alumni that have entered IT careers in the military to come speak to the current IT students. We have offered our students in community service efforts at the museum.  | Since 2015 and they were approached by the student in the IT program. |

# **SUBMIT YOUR APPLICATION**

**SUBMIT YOUR APPLICATION**

* Fill out this application.
* Once you have finished, complete [this form](https://careertech.org/2018-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! The selection committee will convene in December 2017 to review the applications and make final decisions. You will know the status of your application by January 25, 2018. 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 student 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.