U.S. Department of Education

2019 National Blue Ribbon Schools Program

[X] Public or [ ] Non-public

For Public Schools only: (Check all that apply) [ ] Title I [ ] Charter [X] Magnet [ ] Choice

Name of Principal Mr. Jonathan Synold

(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in the official records)

Official School Name Advanced Technologies Academy

(As it should appear in the official records)

School Mailing Address 1411 Robin Street

(If address is P.O. Box, also include street address.)

Las Vegas NV 89106-1904

City State Zip Code+4 (9 digits total)

County Clark County

Telephone (702) 799-7870

Fax (702) 799-0656

Web site/URL https://atech.org/

E-mail synoljj@nv.ccsd.net

I have reviewed the information in this application, including the eligibility requirements on page 2 (Part I-Eligibility Certification), and certify, to the best of my knowledge, that it is accurate.

Date____________________________

(Principal’s Signature)

Name of Superintendent*Dr. Jesus Jara

(Specify: Ms., Miss, Mrs., Dr., Mr., Other) E-mail jarajf@nv.ccsd.net

District Name Clark County School District

Tel. (702) 799-5304

I have reviewed the information in this application, including the eligibility requirements on page 2 (Part I-Eligibility Certification), and certify, to the best of my knowledge, that it is accurate.

Date____________________________

(Superintendent’s Signature)

Name of School Board

President/Chairperson Ms. Lola Brooks

(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

I have reviewed the information in this application, including the eligibility requirements on page 2 (Part I-Eligibility Certification), and certify, to the best of my knowledge, that it is accurate.

Date____________________________

(School Board President’s/Chairperson’s Signature)

The original signed cover sheet only should be converted to a PDF file and uploaded via the online portal.

*Non-public Schools: If the information requested is not applicable, write N/A in the space.
Part I – Eligibility Certification

The signatures on the first page of this application (cover page) certify that each of the statements below, concerning the school’s eligibility and compliance with U.S. Department of Education and National Blue Ribbon Schools requirements, are true and correct.

1. All nominated public schools must meet the state’s performance targets in reading (or English language arts) and mathematics and other academic indicators (i.e., attendance rate and graduation rate), for the all students group, including having participation rates of at least 95 percent using the most recent accountability results available for nomination.

2. To meet final eligibility, all nominated public schools must be certified by states prior to September 2019 in order to meet all eligibility requirements. Any status appeals must be resolved at least two weeks before the awards ceremony for the school to receive the award.

3. The school configuration includes one or more of grades K-12. Schools on the same campus with one principal, even a K-12 school, must apply as an entire school.

4. The school has been in existence for five full years, that is, from at least September 2013 and each tested grade must have been part of the school for the past three years.

5. The nominated school has not received the National Blue Ribbon Schools award in the past five years: 2014, 2015, 2016, 2017, or 2018.

6. The nominated school has no history of testing irregularities, nor have charges of irregularities been brought against the school at the time of nomination. If irregularities are later discovered and proven by the state, the U.S. Department of Education reserves the right to disqualify a school’s application and/or rescind a school’s award.

7. The nominated school has not been identified by the state as “persistently dangerous” within the last two years.

8. The nominated school or district is not refusing Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district-wide compliance review.

9. The OCR has not issued a violation letter of findings to the school district concluding that the nominated school or the district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan from the district to remedy the violation.

10. The U.S. Department of Justice does not have a pending suit alleging that the nominated school or the school district, as a whole, has violated one or more of the civil rights statutes or the Constitution’s equal protection clause.

11. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the school or school district in question; or if there are such findings, the state or district has corrected, or agreed to correct, the findings.
PART II - DEMOGRAPHIC DATA

Data should be provided for the most recent school year (2018-2019) unless otherwise stated.

DISTRICT

1. Number of schools in the district (per district designation): 226 Elementary schools (includes K-8)
   59 Middle/Junior high schools
   49 High schools
   0 K-12 schools
   334 TOTAL

SCHOOL (To be completed by all schools)

2. Category that best describes the area where the school is located:
   [X] Urban or large central city
   [ ] Suburban
   [ ] Rural or small city/town

3. Number of students as of October 1, 2018 enrolled at each grade level or its equivalent in applying school:

<table>
<thead>
<tr>
<th>Grade</th>
<th># of Males</th>
<th># of Females</th>
<th>Grade Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>PreK</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>K</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>216</td>
<td>112</td>
<td>328</td>
</tr>
<tr>
<td>10</td>
<td>191</td>
<td>93</td>
<td>284</td>
</tr>
<tr>
<td>11</td>
<td>173</td>
<td>111</td>
<td>284</td>
</tr>
<tr>
<td>12 or higher</td>
<td>139</td>
<td>106</td>
<td>245</td>
</tr>
<tr>
<td>Total Students</td>
<td>719</td>
<td>422</td>
<td>1141</td>
</tr>
</tbody>
</table>

*Schools that house PreK programs should count preschool students only if the school administration is responsible for the program.
4. Racial/ethnic composition of the school (if unknown, estimate): 0% American Indian or Alaska Native
17% Asian
9% Black or African American
42% Hispanic or Latino
1% Native Hawaiian or Other Pacific Islander
24% White
7% Two or more races
100% Total

(Only these seven standard categories should be used to report the racial/ethnic composition of your school. The Final Guidance on Maintaining, Collecting, and Reporting Racial and Ethnic Data to the U.S. Department of Education published in the October 19, 2007 Federal Register provides definitions for each of the seven categories.)

5. Student turnover, or mobility rate, during the 2017 – 2018 school year: 2%

If the mobility rate is above 15%, please explain.

This rate should be calculated using the grid below. The answer to (6) is the mobility rate.

<table>
<thead>
<tr>
<th>Steps For Determining Mobility Rate</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Number of students who transferred to the school after October 1, 2017 until the end of the 2017-2018 school year</td>
<td>0</td>
</tr>
<tr>
<td>(2) Number of students who transferred from the school after October 1, 2017 until the end of the 2017-2018 school year</td>
<td>21</td>
</tr>
<tr>
<td>(3) Total of all transferred students [sum of rows (1) and (2)]</td>
<td>21</td>
</tr>
<tr>
<td>(4) Total number of students in the school as of October 1, 2017</td>
<td>1133</td>
</tr>
<tr>
<td>(5) Total transferred students in row (3) divided by total students in row (4)</td>
<td>0.02</td>
</tr>
<tr>
<td>(6) Amount in row (5) multiplied by 100</td>
<td>2</td>
</tr>
</tbody>
</table>

6. English Language Learners (ELL) in the school: 1%

Specify each non-English language represented in the school (separate languages by commas): Chinese, Spanish, Tagalog, Russian

7. Students eligible for free/reduced-priced meals: 49%

Total number students who qualify: 559
8. Students receiving special education services: 2%  
27 Total number of students served

Indicate below the number of students with disabilities according to conditions designated in the Individuals with Disabilities Education Act. Do not add additional conditions. It is possible that students may be classified in more than one condition.

- 10 Autism
- 0 Deafness
- 0 Deaf-Blindness
- 0 Developmental Delay
- 0 Emotional Disturbance
- 0 Hearing Impairment
- 0 Intellectural Disability
- 0 Multiple Disabilities
- 1 Orthopedic Impairment
- 1 Other Health Impaired
- 15 Specific Learning Disability
- 0 Speech or Language Impairment
- 0 Traumatic Brain Injury
- 0 Visual Impairment Including Blindness

9. Number of years the principal has been in her/his position at this school: 3

10. Use Full-Time Equivalents (FTEs), rounded to nearest whole numeral, to indicate the number of school staff in each of the categories below:

<table>
<thead>
<tr>
<th>Number of Staff</th>
<th>Administrators</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Classroom teachers including those teaching high school specialty subjects, e.g., third grade teacher, history teacher, algebra teacher.</td>
<td>52</td>
</tr>
<tr>
<td>Resource teachers/specialists/coaches e.g., reading specialist, science coach, special education teacher, technology specialist, art teacher, etc.</td>
<td>5</td>
</tr>
<tr>
<td>Paraprofessionals under the supervision of a professional supporting single, group, or classroom students.</td>
<td>4</td>
</tr>
<tr>
<td>Student support personnel e.g., school counselors, behavior interventionists, mental/physical health service providers, psychologists, family engagement liaisons, career/college attainment coaches, etc.</td>
<td>5</td>
</tr>
</tbody>
</table>

11. Average student-classroom teacher ratio, that is, the number of students in the school divided by the FTE of classroom teachers, e.g., 22:1 22:1
12. Show daily student attendance rates. Only high schools need to supply yearly graduation rates.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily student attendance</td>
<td>98%</td>
<td>98%</td>
<td>97%</td>
<td>97%</td>
<td>97%</td>
</tr>
<tr>
<td>High school graduation rate</td>
<td>100%</td>
<td>100%</td>
<td>99%</td>
<td>99%</td>
<td>99%</td>
</tr>
</tbody>
</table>

13. **For high schools only, that is, schools ending in grade 12 or higher.**
Show percentages to indicate the post-secondary status of students who graduated in Spring 2018.

<table>
<thead>
<tr>
<th>Post-Secondary Status</th>
<th>235</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduating class size</td>
<td></td>
</tr>
<tr>
<td>Enrolled in a 4-year college or university</td>
<td>74%</td>
</tr>
<tr>
<td>Enrolled in a community college</td>
<td>20%</td>
</tr>
<tr>
<td>Enrolled in career/technical training program</td>
<td>1%</td>
</tr>
<tr>
<td>Found employment</td>
<td>4%</td>
</tr>
<tr>
<td>Joined the military or other public service</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
</tr>
</tbody>
</table>

14. Indicate whether your school has previously received a National Blue Ribbon Schools award.
   Yes X No

If yes, select the year in which your school received the award. 2011

15. In a couple of sentences, provide the school’s mission or vision statement.

To empower a diverse student body to succeed in a competitive world by promoting academic concepts, technological skills, and ethical behavior.

16. **For public schools only,** if the school is a magnet, charter, or choice school, explain how students are chosen to attend.

Advanced Technologies Academy (A-TECH) is a magnet, career and technical academy high school.
Students who are entering grades 9 and 10 apply for one of seven CTE programs and are selected through a blind-lottery. Approximately 85% of students meet the minimum qualifications for the lottery, which include a blind-review of academics, attendance, and citizenship as reported on the first semester report card. There are three priority groups for lottery that apply only to students entering grade 9; they are sibling preference (25%), magnet middle school program continuity (25%), and geographic zone preference (25%). If there are more qualified applicants than seats available, a computerized random lottery is used to select students for the remaining seats.

The lack of a geographic attendance zone and utilization of a lottery process allows for a highly diverse student body that closely resembles the Las Vegas community as a whole with no ethnic group being over 42%.

As student selection is through a lottery process, the demographic composition of the student body reflects the lottery pool. A-TECH actively works to sustain a diverse student enrollment by having a dedicated, full-time Magnet Recruiter who develops an annual targeted recruiting plan to ensure that A-TECH’s demographics mirror that of the school district. The Magnet Recruiter presents to students and parents at all 59 CCSD middle schools, several community events, a Future Maverick Open House, and several private and charter schools. In addition, 137 Student Ambassadors encourage underrepresented minority students to attend A-TECH through shadowing and tours.
PART III – SUMMARY

Advanced Technologies Academy (A-TECH) is a Title I magnet Career and Technical Academy (CTA) located near downtown Las Vegas, Nevada. A-TECH is the high school that most closely mirrors Clark County’s demographics and students from every zip code in the Las Vegas Valley. The school district provides free bus transportation for all A-TECH students to eliminate barriers and ensure equitable access.

Established in 1994 as part of CCSD’s voluntary desegregation plan, A-TECH was the second magnet high school to open in Las Vegas. A-TECH’s mission has always been to integrate a rigorous academic program with cutting-edge technology. To make this a reality, the school has always prided itself on a well-developed technology infrastructure from the first fully computer networked school in Nevada to today with unfiltered Wi-Fi, over 1,000 devices, a new IT lab, and advanced computers. A-TECH is celebrating its 25-year anniversary and has become a model for high academic achievement in southern Nevada.

In living its motto of, “Academics Plus Technology,” A-TECH provides a comprehensive and rigorous curriculum in three pillars; Career and Technical Education (CTE), Advanced Placement (AP), and “Connector” courses. The three pillars allow students to explore various disciplines through a well-balanced high school experience.

A-TECH students are selected into one of seven magnet CTE programs: Architectural Design, Business Management, Computer Science, Engineering, Graphic Design, Legal Studies, and IT Networking. Students may earn up to 12 college credits as well as industry certifications through completion of their CTE program. Students may “double major” in the elective CTE programs of Cybersecurity, Digital Game Design or Video Production. Seniors must complete an extensive Capstone project in their CTE program, which includes a research paper, presentation, and project or internship. A-TECH’s robust CTE program allows students to obtain real-world skills that are critical for post-secondary options.

Five years ago, A-TECH committed to expanding its AP program by increasing access to courses for underrepresented students. In this time, A-TECH added seven AP courses including Seminar, Research, Chinese, and Human Geography bringing the total to 25 different courses offered this year. The number of AP exams has doubled with FRL students accounting for nearly 50% of exams taken. Not only has underrepresented student participation and the number of exams increased, but the percent of students scoring 3 or higher (passing) remained 28% higher than the Nevada mean. In fact, 83% of the students in the class of 2018 passed at least one AP examination during their four years at A-TECH and 4% of all AP students scoring a 3+ in Nevada were A-TECH students. The AP expansion has proved successful in providing all students the opportunity to learn college-level content and skills.

With no geographic zone or sports, A-TECH is committed to providing “Connector” courses and extracurricular activities to develop school spirit and breakdown barriers. Recently, Connector courses have been built into the 8-period schedule to allow increased student participation during school hours (Speech and Debate, Science Olympiad, etc.). A-TECH’s 60 clubs have an emphasis on academic competition, community service, or technology including App Developers’ Club, Board Game Club, CyberPatriot, and four Career and Technical Student Organizations (CTSOs). A-TECH is proud of its Connector successes including the #1 ranked teams in Nevada for Chess, Mock Trial, and Model Bridge Building.

The three pillars of CTE, AP, and Connectors has been critical to A-TECH’s tradition of success over the past 25 years. New programs have emerged by listening to students through annual student surveys and monthly Principal Focus Groups. Students also take a surveys on their teachers that the administration uses during Mid-Year conferences to develop areas of strength and growth for each teacher. The power of student voice and choice is evident at A-TECH.

In 2003 and 2011, A-TECH was honored to receive the National Blue Ribbon Award as an Exemplary High Performing School. Since 2011, A-TECH has quickly adapted to a more economically and ethnically diverse student body, resulting in a Title I designation in 2016. These changes occurred due to shifts in Las Vegas’ demographics and moving to a randomized lottery rather than an extensive application and review.
process. Despite the changing landscape, A-TECH is proud that student achievement is higher than when we were selected for previous National Blue Ribbon Awards.

Knowing that A-TECH is a two-time National Blue Ribbon school has ensured a level of quality that the faculty and staff take very seriously. Teachers are constantly looking for ways to improve teaching techniques such as adopting Google Classroom and participating in a three-year ELL professional development program. In addition, the award has shined a spotlight on A-TECH and this has led to it being selected as one of three Nevada Governor Designated STEM Schools. These awards have drawn educational leaders from around the world interested in learning more about high-quality STEM education for diverse students including formal partnerships with three Chinese high schools. Industry connections have also improved and VIP guests have provided unrivaled experiences for A-TECH students including Bill Clinton, Laura Bush, and former Governor Sandoval.
1. **Core Curriculum:**

1a. **Reading/English language arts:**

A-TECH’s English and Language Arts (ELA) curriculum meets or exceeds the Nevada Academic Content Standards (NVACS). The required four-year program offers courses at grade-level, honors, AP (11th and 12th), and English 101 and 102 Dual Enrollment credit through the College of Southern Nevada (CSN). The AP Language and Composition and the AP Language and Literature courses follow the College Board curriculum while the CSN college-level curriculum is required for English 101 and 102.

The department adjusts instruction based on analysis of AP, ACT and Nevada End-of-Course assessments. Three ELA teachers are AP Readers and all participate or lead the district's AP Cadre PLCs to ensure a deep understanding of college-level expectations. ELA teachers collaborate to vertically align their long-range plans to support AP and Dual Credit courses at all levels. Teachers are still provided with autonomy on which texts they choose to use. Texts are arranged in thematic units to address issues of diversity, equality, and civic responsibility. Instructional strategies in all classes include seminar discussions, close reading annotations, graphic organizers, text rendering, collaborative grouping, project-based learning, and writing workshops.

In addition to assessments, other feedback has provided enhancements to A-TECH’s ELA program. For example, based on college recruiter and teacher feedback, students were lacking the necessary interpersonal communication skills so the staff decided to require all students to take a public speaking course. Students also receive public speaking opportunities in their CTE programs, the 9th-grade Curiosity Quest project, and Senior Capstone. After analysis of Senior Capstone projects, a renewed emphasis on research strategies was also instituted including establishing a robust AP Capstone program and curriculum for appropriate online research techniques.

The ELA changes have proven successful with 77% of A-TECH seniors reaching the ACT College Readiness Benchmark in English (42% higher than the Nevada average).

1b. **Mathematics:**

Although only 3 years of mathematics is required for graduation in Nevada, nearly all A-TECH students graduate with a minimum of 4 math courses. A-TECH’s math curriculum provides students the tools and critical thinking skills necessary for problem solving in a wide variety of disciplines. Grade-level and honors courses in Algebra I, II, Geometry, and Pre-Calculus align to NVACS. Students enrolled in Algebra I and Geometry are required to take Nevada End-of-Course Exams that are calculated into semester grades. AP Statistics, AP Calculus AB, and AP Calculus BC courses align to The College Board Curriculum.

A-TECH students come from every middle school in the district and possess drastically different skills. A weeklong math boot camp is provided for all grade 9 students who select Algebra I. Longitudinal data demonstrates that these students have traditionally struggled the most, and are more likely to withdraw due to low grades. In addition, after-school math tutoring and a College Preparatory Math course were added to support all students. Seniors who score between 16 and 21 on the ACT are placed into a 95 and 96 level dual-enrollment course so they are able to complete math remediation courses at A-TECH rather than during the first year of college.

The Math department uses a PLC model for data analysis, alignment, and scaffolding of curriculum. Math teachers are experts at incorporating instructional technology and using a flipped classroom model. Math classrooms have iPads or TIInspire calculators; teachers constantly use these devices to gather real-time formative data to pull small groups of struggling students or assign a student tutor to assist. Lessons are posted to Google Classroom or Canvas for students to review material at home. The Math department continues to implement innovative practices to meet the diverse needs of A-TECH students.
1c. Science:

The science curriculum prepares students for college and careers by introducing them to methods of scientific inquiry in applied laboratory contexts. Students learn to understand science as a process rather than as an accumulation of facts and terms. Instructional strategies employed include lab experiments, simulations (virtual and hands-on), project-based learning, independent research projects, and reading/analysis of a variety of print and online resources. Most classes use a flipped classroom model to increase time for hands-on lab experiments and student discourse.

Students may complete grade-level and honors courses in biology, chemistry, physics, and geoscience that align to the NVACS. A state-mandated science assessment is administered to all 9th graders. In 2018, 75% of A-TECH students achieved mastery on this exam compared to 34% of district students.

Although only 2 years of science is required for graduation, a vast majority of A-TECH students graduate having taken 4 science courses. Students are encouraged to take advanced levels of science aligned to the College Board curriculum (AP Biology, AP Chemistry, AP Physics 1&2, AP Physics C, and AP Environmental Science).

The Science department uses a PLC model to examine assessment data and align instruction. A focus emerging from data analysis has been to increase ACT and AP science scores. Strategies have included Saturday Mock AP exams, having teachers become AP Readers, using online resources such as Albert.io, attending district trainings, and extensive ACT practice sessions. Results have been promising with 51% of A-TECH Seniors meeting the ACT college readiness benchmark in Science compared to 17% in Nevada.

The Science department's focus on mastery learning and high expectations coupled with data analysis guarantees that students graduate with skills needed in college or career settings.

1d. Social studies/history/civic learning and engagement

A-TECH’s Social Studies department is regarded as one of the best in the state as evident by an ever-expanding enrollment in AP and pass rates that are consistently 40% higher than the Nevada average on AP exams.

The department faculty includes three AP Readers and the 2014 Nevada Teacher of the Year. The social studies curriculum provides students the opportunity to investigate historical events of western and non-western peoples from pre-history through the present time. Students have a wide selection of courses to customize programs of study that meet their personal interests and goals. The curriculum in grade-level and honors courses in world history, US history, and US government align to the NVACS. The curriculum in AP Human Geography, AP World History, AP European History, AP US History, AP US Government, AP Psychology, and AP Economics (both Macro and Micro) align to the College Board curriculum.

Social Studies teachers support all other departments with a focus on the synthesis of information from multiple sources, making connections between different concepts, evaluating sources, presentation skills, and writing research papers. For example, 11th graders must complete an extensive History Day Project that includes a research paper, project display, and formal presentation.

Social Studies teachers use a PLC model to discuss current issues, review assessments data, and share best practices related to curriculum, instruction, and assessment. In addition, Social Studies teachers conduct a weekly book study on instructional best practices. This collaboration allows the department to continue to improve their curriculum and instruction.

Classroom methods address both disciplinary skills and content themes; and integrate them with high-quality instructional techniques including the use of graphic organizers, close readings, analysis of primary source documents, cooperative learning structures, writing and presenting information, and the use of oral and visual activities that extend critical thinking and discourse.
1e. For secondary schools:

A-TECH ensures all students graduate college and career ready through rigorous curriculum, high expectations, and multiple opportunities to earn college credits in dual enrollment and CTE courses. All A-TECH students enroll in one of seven CTE programs that focus on skills in that career area. A-TECH funds an additional counselor to allow more individualized student support. In addition, a full-time College and Career Specialist assists students with finding requirements for college, arranges internships, and arranges college and military recruiter visits. A-TECH’s model has proven effective as 95% of the Class of 2018 entered post-secondary institutions, 4% percent went directly into the workforce, and 1% entered the military/public service.

1f. For schools that offer preschool for three- and four-year old students:

2. Other Curriculum Areas:

With a daily eight period schedule, A-TECH students are able to enroll in two elective classes beyond that of a typical CCSD student; allowing them to explore curriculum areas outside their core and CTE courses. The vision for electives is to provide meaningful and rigorous courses that allow students to cultivate personal interests, build community, and develop well-rounded college/work skills.

A-TECH has expansive visual and performing arts, physical education/health, foreign language, and CTE courses. Electives choices include multi-year studies in journalism, speech and debate, and principles of leadership. Also, included are AP elective courses (Research, Studio Art, Seminar, Psychology, Computer Science Principals, and Economics).

A-TECH believes that the arts can enhance a STEM school and therefore students are encouraged to take daily visual and performing arts courses. These multiyear courses include band, orchestra, video production, art, drawing, and digital game design. Students often blend their knowledge from these courses into their CTE programs. For example, in digital game design students mix computer science coding with graphic arts and music skills or in video production courses students use their IT networking skills to rewire the school’s TV studio for morning announcements. This cross-disciplinary approach with the arts and technology is critical for 21st-century career pathways.

The physical education/health program provides all students with the knowledge, skills, and desire to maintain a healthy lifestyle. A-TECH follows required physical education/health requirements but also has a lifetime fitness elective for upperclassman. Students may also have a flexible schedule to participate in varsity sports at their home schools.

Although not required by Nevada, nearly all A-TECH students complete a 2+ year foreign language sequence. Spanish I, II, III and AP Spanish Language are robust courses. Spanish for Spanish Speakers courses have also been offered to support our large Spanish illiterate population of students. Chinese was added after student surveys showed a need for a second language option. A-TECH collaborated with the Confucius Institute to host a teacher from China to allow time for the program to expand. Next year, Chinese II will be offered in addition to the current AP Chinese and Chinese I courses.

A-TECH students select one of seven CTE programs for four year to develop skills for occupations and further post-secondary educational opportunities. All students complete a Senior Capstone and earn transferable Dual Credit. An overview of each program follows:

ARCHITECTURAL DESIGN requires students to apply their skills through participation in local and national design contests and prepares students for Autodesk Certification. The Architectural Design program was recognized as the top program in America in 2016 by Advance CTE and one of its teachers is the 2019 Nevada Teacher of the Year.
BUSINESS MANAGEMENT uses the nationally recognized High School of Business curriculum and focuses on marketing, management, finance, economics, and presentation skills. Students operate the Student Store and compete in DECA and FBLA competitions locally and nationally.

COMPUTER SCIENCE students are required to take two AP courses with a focus on programming languages. Students have several opportunities to participate in hackathons, student-led workshops, and the Hour of Code. A-TECH’s program is recognized as a Verizon Innovative Learning site and this allows students to partner with local businesses to assist with augmented reality projects.

ENGINEERING develops knowledge of engineering principles through the Project Lead the Way Curriculum (PLTW). Students are engaged in compelling, real-world challenges that help them become better collaborators and thinkers. The program has also collaborated with the ACE (Architecture, Construction, and Engineering) mentoring program to have industry professionals visit A-TECH weekly and host field trips to worksites on the Strip.

GRAPHIC DESIGN students develop skills in drawing, digital communications, design critiquing, portfolio development, and presentations. Students participate in design competitions including the redesign of A-TECH’s mascot, which was officially adopted in 2017.

IT NETWORKING develops skills necessary to support microcomputers with various platforms and administer network systems. Students are taught the fundamentals of Local Area Network design and prepare for the Cisco CCNA and A+ Certifications. Students also participate in the CyberPatriot competition and earned a top 5 ranking in Nevada last year.

LEGAL STUDIES focuses on civil and criminal law with practical training in the skills necessary to pursue college-level studies leading to legal occupations. Besides field trips and guest speakers, students write, produce and act in a mock trial musical each year.

3. Special Populations:

A-TECH employs a multi-tiered instructional and support system to ensure success and achievement for all students. Targeted instruction, interventions, and assessments meet the individual needs of student subgroups.

Despite a small official ELL population, over 30% of A-TECH students speak another language at home. Due to this large population, A-TECH adopted a three-year ELL professional development plan for all faculty, currently in year two. All faculty attend weekly, rigorous training focused on leveraging student assets to support academic language development through researched-based teaching practices. An ELL Success Advocate position was created to mentor and tutor ELL students. These interventions have proven successful with 90% of A-TECH’s ELL population meeting the Nevada Adequate Growth Percentile compared to the district average of 20.4%.

A-TECH promotes student achievement in the general education curriculum through supplemental services and a learning lab throughout and after the school day. A-TECH maintains a 15:1 special education student-to-teacher ratio and has two, full-time instructional assistants to support students in the least restrictive environment.

Despite A-TECH’s academic success and higher scores than the Nevada average in every indicator, an achievement gap between ethnic groups exists in all subtests of the ACT and in average composite scores. A-TECH’s Asian (24.6) and white (24.1) average ACT scores are higher than the Hispanic (22.3) and Black (21.4) averages. Although the average ACT scores for all groups is much higher than the state average of 17, A-TECH strives to ensure all students reach college and career readiness benchmarks.

Students from low performing middle schools are often overwhelmed with the rigor of A-TECH and thus a renewed focus has emerged to assist these students during this difficult transition. A four-day, Boot Camp is required for all incoming Algebra I students and includes sessions in math, English, technology use, and
mentoring. A teacher supervises the library daily until 4:30 pm so all students have access to computers, printers, and a place to collaborate. Also, any student who scored a 17 or below on the PreACT is placed into a College Survival Class that focuses on improving test scores and the college application process.

An expanded Black Student Union and Hispanic Student Association have also aided students in feeling connected to the school and upperclassmen. These efforts have shown improvement with a 50% decrease in the number of students on academic probation and early withdrawals in the past two years.

In addition, the AP program was adjusted to reduce achievement gap opportunities. Unnecessary prerequisites were eliminated and an AP Night was established to expose students and parents to the advantages of rigorous AP coursework. Counselors strongly advocate for all students to take at least one AP class by their 10th grade year so students are comfortable enrolling in AP courses in grade 11 and 12. The number of AP exams has doubled over the past five years while pass rates have remained constant, demonstrating that A-TECH students across all ethnic backgrounds are reaching college-level expectations.

All students are encouraged to use the daily 30 minute Assistance Period to receive additional help from teachers. This time has been particularly beneficial for underclassmen who struggle with time and workload management.
PART V – SCHOOL SUPPORTS

1. School Climate/Culture:

A-TECH’s success as a magnet school depends on recruiting diverse students willing to step out of their comfort zones, commute, and challenge themselves. Therefore, it is critical that A-TECH has a student-centered approach to creating a positive climate and culture.

This student-centered focus starts with welcoming students to the A-TECH community. Student Ambassadors and 9th-grade teachers plan summer orientations for students and parents. Ambassadors also serve as mentors who assist students with everything from how to check their grades online to how to use Assistance Period effectively.

A-TECH’s 60+ clubs and organizations connect students to the school community. A-TECH has a top rated Student Council that has doubled in size recently and has consistently received top ratings by the National Student Council Association. Clubs continue to innovate for changing demographics. For example, the Sadie’s Hawkins dance transitioned into a Carnival while the Developers’ Club moved from designing websites to building the official A-TECH app.

Recognizing students is critical to a positive culture. Every teacher handwrites and mails home a Positive Postcard to three or more students each month. Each department selects a Student of the Month who enjoys breakfast with the principal.

Administrators and teachers constantly seek feedback from students through surveys and focus groups. For the past two years, a team of 9th-grade teachers conducted extensive surveys and developed research-based action plans to ensure a positive transition to A-TECH. The principal holds monthly focus groups of randomly selected students. All teachers receive student feedback through annual student surveys, while teachers take surveys on the administrators. This critical analysis allows for powerful reflection for teachers and administrators.

A positive climate among the staff is also critical to A-TECH’s success as the competitive nature of the school can create high levels of stress among faculty. A-TECH celebrates success through Staff of the Month recognition, monthly BBQs, and gift card incentives. Twice each year, A-TECH students write thank you cards for teachers to show their appreciation. In addition, A-TECH allocated funds quarterly for substitute-release to support department collaboration days and conference attendance. Funds are also provided to cover all club advisor travel expenses during out of district competitions; allowing advisors to focus on the competition, not fundraising. A-TECH believes it has a challenging yet rewarding climate and this is evident in the fact that no teacher has voluntarily transferred from A-TECH in the past three years.

The results of a student-centered approach is clear as A-TECH has consistently had one of the top student, staff, and parent satisfaction rates of all high school’s on district-wide surveys.

2. Engaging Families and Community:

A-TECH recognizes that parents need a sense of ownership to feel invested in their schools. This is why parents are provided leadership opportunities including having three parent representatives on the School Organizational Team (SOT). There are online elections for these seats, which account for 50% of the voting bloc. Members of the SOT also include two teachers, a support staff employee, and a non-voting student representative. The SOT meets monthly with the principal to discuss and vote on facility and faculty concerns, the budget, School Performance Plan, and staffing plan.

A-TECH also has a Parent Ambassador who serves as a liaison between the school administration and parents. The Ambassador attends an intensive training with the district’s Family and Community Engagement Team. He or she will execute teacher recognition activities and fundraisers, and brings up parent concerns with the principal.
A-TECH welcomes parents during the annual New Student and Parent Orientations, Open House, AP Night, College and Scholarship Night, and monthly Parent Advisory Council (PAC) meetings. In addition, parents attend band and orchestra performances, the Graphic Arts Showcase, Senior Capstone Showcase, Senior Awards Night, and Computer Science BBQ.

A-TECH understands the needs of diverse parents so all office messages are sent in English and Spanish. The A-TECH website has a link to Google Translate to automatically translate the entire website into more than one hundred languages. A-TECH also collaborates with CSN to offer ELL Courses for parents three times a week in its library. Parents can also access their child’s grades and attendance online and can be viewers on Google Classrooms pages.

The Las Vegas community also recognizes the uniqueness of A-TECH and many organizations have formed partnerships. Community members serve on an Advisory Board that funds scholarships, arranges field trips and guest speakers, provides internships, and works with CTE teachers to ensure industry standards are being upheld. The University of Nevada (UNLV) and University of Nevada - Reno (UNR) have developed deep relationships with A-TECH including hosting on-site application fairs for parents and students, free flights to Reno, and seats on the Computer Science and Architecture Department’s steering committees. Due to these relationships, half of the Class of 2018 currently attends UNLV or UNR.

A-TECH has already seen positive trends as more students remain in Nevada. Alumni have offered internships at local companies such as OutletPC, KB Homes, and several law and architecture firms. One law firm even covered all the travel expenses for the Nevada championship Mock Trial team to compete in the national competition. A-TECH is building a network of dedicated alumni, community members, and parents for the betterment of current and future students.

3. Professional Development:

A-TECH treats its teachers as professionals. A key aspect of this culture of professionalism is allowing for differentiated support and choice.

Each school year begins with two days of professional development, presented in a conference-like format. Teachers who attended conferences over the summer or have expertise present to their colleagues. Teachers select the sessions they believe are most impactful to their instruction. A-TECH recognizes that teachers’ time is valuable so opening of school presentations by the administration are distributed online; giving teachers the option of viewing them during summer break. On the opening of school survey, A-TECH teachers scored the professional development they received a 4.3 out of 5 demonstrating effectiveness of peer training.

The strategy of collegial sharing of knowledge continues throughout the school year with monthly optional Tech Tuesdays. Teachers share best practices for technology including online programs, iPads and Chromebooks.

Each week, A-TECH teachers have one hour of CCSD-required Site-Based Collaboration Time (SBCT). A-TECH made this time valuable by using a PLC model, allowing teachers to select goals aligned to A-TECH’s School Performance Plan, and selecting meeting time when it was convenient for them as many teachers have prescheduled school organization meetings, professional development, and family obligations. Several PLC protocols are provided by the administration and teachers complete weekly reflection on the PLC progress. All PLC created and implemented an ACT Action Plan a few months before the state-mandated ACT to improve student preparedness.

A-TECH is also in its second of a three year of professional development series focused on ELL best practices. The ELL professional development includes several instructional rounds per year when district-level ELL staff along with A-TECH administrators and teachers visit classrooms to focus on instructional practices and shadow ELL students.
Professional development is further individualized at A-TECH through the evaluation process. The evaluation cycle requires administrators to observe, conference, and collaboratively develop next steps with every teacher at least three times per year. Teachers set Student Learning Goals that are strongly connected to an individualized professional development goal/plan. Outcomes include providing training to teachers completing Google Certification and financial support for a school-based cohort of 18 teachers completing National Board Certification.

In addition, teachers who are attempting to become administrators are provided opportunities to improve tardy and attendance issues. They also shadow administrators on classroom visits and serve on the CCSD’s Expulsion Hearing Panel.

A-TECH administrators attend all district and state trainings related to magnet, assessment, and CTE programs and participating in the Public Education Foundation’s Executive Leadership Program that provides monthly professional development opportunities.

With such expertise on staff, A-TECH is leveraging and growing capacity through the power of choice and professionalism.

4. **School Leadership:**

A-TECH’s school leadership philosophy is based on a shared and participatory approach. The principal, two assistant principals, department chairpersons, school counselors, the School Performance Planning (SPP) Team, and SOT collaborate to drive continuous school improvement.

The administrative team builds relationships with faculty by maintaining an open door policy, being approachable, visible, and celebrating student, teacher, and staff success. The principal even leads by example by advising the Basketball Club and participating in bi-annual student-staff games.

A-TECH administrators are foremost instructional leaders who closely monitor classrooms for effective instructional practices and implementation of adopted curriculum. Lesson plans audits are conducted monthly to ensure objective-driven lessons and bell-to-bell instruction is occurring at all times. Struggling teachers also are required to follow specific improvement plans developed with student achievement in mind.

A-TECH’s SPP Team is a representative body of teachers, support staff, parents, and administrative team responsible for examining all school-wide concerns. The SPP teams analyzes large datasets including surveys, ACT, SAT, End of Course, and AP results. The SPP Team then sets a clear and consistent action plan aligned to strategic goals in three areas; 100% graduation rates, structured student supports, and a respectful climate for diverse students. The School Performance Plan and aligned Strategic Budget is submitted for final revision and approval by the elected School Organization Team members.

The School Leadership team consists of the school administrators and department chairs. They meet monthly to ensure proper planning for and execution of curriculum, instructional, and day-to-day operations. In addition, all teachers are required to be members on a least one school committee (Technology, New Teacher Support, etc.). These committees change each year based on school needs and provide teacher leadership opportunities to support the administration.

Students participate in focus groups at various points throughout the school year to solicit feedback on the entire school program and administrators have an open door policy for student feedback/suggestions. Students also complete a district-administered, anonymous survey in which they rate school safety, cleanliness, academics, school supports, and extracurricular activities. At the end of first semester, teachers are also given the opportunity to provide feedback on the performance of A-TECH’s administration through an anonymous survey.

A-TECH’s leadership believes in constantly refining its practices based on data and feedback to ensure a high-quality education is provided for all students.
Part VI – STRATEGIES FOR ACADEMIC SUCCESS

A-TECH is the #1 Ranked School in Nevada by US News and World Report for many reasons such as a talented teaching team, strong administrators, a diverse student body willing to challenge themselves, and courses that are rigorous and relevant. Yet underlying all these items is a strong belief in the power of choice.

A-TECH’s enrollment is based on a student’s choice to apply for the magnet lottery. Once on campus, A-TECH provides students with a high level of freedom. For example, A-TECH is the only high school in CCSD that has unfiltered Wi-Fi for students. During lunch students may eat outside, play basketball or soccer, or visit the library. Providing choices to students has reduced disciplinary issues because students feel empowered to make appropriate decisions.

Teachers and students also have choice in the technology they use. A-TECH was one of the district’s first “Bring Your Own Device Schools” as students could use their cell phones or other devices in class. Also, teachers may select which type of technology best suits their instructional practices. English teachers prefer Chromebooks while math and science use iPads, and CTE programs require high-end CADD computers. Matching technology needs to classroom instruction has increased engagement and prevented wasteful spending.

The master schedule represents A-TECH’s belief in choice driving the decision-making process. Rather than adding or removing courses based on teacher requests, student desires drive staffing and the master schedule. Counselors meet individually with students to develop a strong academic plan but ultimately students and their parents approve course selections. Providing students with informed options and upholding high expectations is part of the reason AP pass rates have remained stable while enrollment has doubled in five years. When students take ownership of their decisions, they feel empowered and achieve at high rates.

Teachers have freedom to decide how best to teach their standards. This professional autonomy with accountability has spurred incredible collaboration and adaptations. For example, the math department analyzed data and completely revamped their instruction to a flipped classroom model focused on individualized assistance. The math classrooms now have tremendous student collaboration, self-reflection, and targeted supports. When teachers have ownership over decisions in their classrooms, positive outcomes for students emerge. This is evident in the math department with AP Calculus AB pass rates 18% higher than the Nevada average while enrollment increased by 50% in two years.

Allowing for choice in multiple areas has increased investment and ultimately resulted in a 25-year legacy of high achievement for all students.