

ADVANCED TECHNOLOGIES ACADEMY

SCHOOL YEAR 2017-2018

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MISSION STATEMENT

The mission of Advanced Technologies Academy is to empower a diverse student body to succeed in a competitive world by promoting academic concepts, technological skills, and ethical behavior.

THE SCHOOL

Advanced Technologies Academy (A-TECH) is a career and technical academy magnet high school established in 1994 in Las Vegas, Nevada. It was designed with a well-developed technology infrastructure and focus on college preparation. The faculty members are highly qualified and are recognized as some of the top teachers in the state. Additional professional development is provided for academy faculty in all facets of best instructional practices and cutting edge technology to increase student learning.

The integrated academic and career computer-enhanced curriculum prepares students for entrance into post-secondary education and/or provides skills for a successful school-to-career transition. A-TECH opened as the first fully computer-networked technology school in the state of Nevada. It houses over 1,100 computers with full, unfiltered Internet access, and an upgraded WiFi network. With a student/teacher ratio of 28.5:1, the curriculum ensures that a student is not only knowledgeable in theory, but also experienced through hands-on, individualized learning techniques. Students participate in product development, business partnerships, internships, and project-based learning during their tenure at A-TECH.

Through an application process and a blind lottery, students are selected based on their academic records, attendance, and citizenship. They attend a rigorous eight-period schedule, with modified block scheduling two days per week to work on developing technologies in their selected program areas. Academic core classes are selected based on an identification of student ability level and input from former instructors, students, and parents. The rigorous academic level requires students to be focused, organized, have strong study and time management skills. After school extra-curricular activities and tutorial sessions are offered by both faculty and student mentors.

Courses are provided in English, mathematics, science, social studies, health, physical education, humanities, and foreign language as well as courses in the students' selected program areas of study. The use of technology in all classes amplifies the logic-based thinking activities of the A-TECH student. Students are encouraged to participate in the Bring Your Own Device (BYOD) program, which permits the use of personal technology and communication devices during approved instructional times. In addition, laptops are available for student checkout. Creative thinking, problem-solving, decision-making, skill expansion, and project-based learning are utilized in all subject areas. Students are supported in their pursuits of individual product and theory development. Teachers facilitate learning within the classrooms through group projects and activities that seek to promote collaboration and teamwork.

The population is ethnically diverse and students are transported to A-TECH from all areas of the greater Las Vegas valley. Students participate in a wide variety of clubs including, but not limited to Academic World Quest, Anime Club, Ambassadors, American Red Cross Youth, Art Club, Astronomy Club, ATA Foreign Affairs Nations, A-TECH Social Club, Band/Orchestra, Black Student Union, Board Game Club, Body Tech, Breakfast Club, Chess Club, Creative Writing, DECA, Digital Painting, Dogs Dreams & Dance 101, Environmental Awareness Club, Future Business Leaders of America, GEN UN, Guitar/Mariachi Club, Health Occupation Students of America, Hispanic Student Union, Interact, Key Club, Maverick Messenger, Mock Trial, Model UN, Mu Alpha Theta (Math Club), Music Club, National Honor Society, Peer Tutoring Club, Philosophy Club, Photography Club, Psychology Club, Robotics Club, Role-Playing Club, Rotary Speech Competition, SAT/ACT/AP Prep Club, Science Bowl, Science Olympiad, Sci-Tech: ISEF, Soccer Club, Speech and Debate, Student Council, Student Mentors, Sun Youth Forum, Team HBV, Theater Club, Varsity Quiz, and Video Game Design. Students at Advanced Technologies Academy may participate in interscholastic sports at their zoned high schools.

Advanced Technologies Academy is accredited by AdvancED
Clark County School District College Board member institution

Counselors maintain affiliations and/or memberships with the following organizations:
National Association for College Admission Counseling (NACAC), Western Association for College Admission Counseling (WACAC),
American School Counselor Association (ASCA), and Nevada School Counselor Association (NvSCA).

ADVANCED PLACEMENT & HONORS COURSES

ADVANCED PLACEMENT COURSES (24):

AP Biology
 AP Calculus AB
 AP Calculus BC
 AP Computer Science A
 AP Computer Science Principles
 AP English Language & Composition
 AP English Literature & Composition
 AP Environmental Science
 AP European History
 AP Human Geography
 AP Physics 1: Algebra-Based
 AP Physics C: Electricity & Magnetism
 AP Physics C: Mechanics
 AP Macroeconomics
 AP Microeconomics
 AP Psychology
 AP Seminar
 AP Spanish Language & Culture
 AP Statistics
 AP Studio Art 2-D
 AP Studio Art Drawing
 AP United States Government & Politics
 AP United States History
 AP World History

HONORS COURSES (23):

English:

English 9 Honors
 English 10 Honors
 English 11 Honors
 Comp I-H NSHE
 Comp II-H NSHE

Foreign Language:

Spanish II Honors
 Spanish III Honors
 Advanced Spanish Literacy Honors
 Intermediate Spanish Literacy Honors

Mathematics:

Algebra II Honors
 Geometry Honors
 Precalculus AB Honors

Science:

Biology Honors
 Chemistry Honors
 Geoscience Honors
 Physics Honors

Social Studies:

U.S. Government Honors
 U.S. History Honors
 World History Honors

Technology:

Computer Science III Honors
 IT Network III Honors
 IT Network IV Honors
 Web Design III Honors

GRADE POINT AVERAGE & CLASS RANK SUMMARY

Our standard 4.0 GPA grading scale is as follows:

A = 4.0 (90-100%), B = 3.0 (80-89%), C = 2.0 (70-79%), D = 1.0 (60-69%), and F = 0 (59% and below).

Weighted Honors Courses

A weighted grade point factor will be awarded to students for successful completion of Honors, and Advanced Placement (AP) courses as follows:

Honors .025
 Advanced Placement (AP) .050

The weighted grade point factors for AP courses will be given only when the student participates in a cumulative examination.

The exception for this requirement only exists if the course load for a student exceeds 3 AP courses per semester.

A weighted GPA with Bonus Points cap for the Honors Program for students will be added as follows:

- The GPA with Bonus Points for the Honors Program is no more than twenty-eight semesters (14 classes) of Honors/AP courses. The highest possible GPA under this system is 4.80. The class of 2021 does not have a GPA cap.
- Students will receive Bonus Points of .050 for four semesters (2 classes) of AP courses and will also receive Bonus Points of .025 for twenty-four semesters (12 classes) of Honors courses.
- Students who choose to enroll in only Honors level courses will receive Bonus Points of .025 for twenty-eight semesters (14 classes) of Honors courses.

Class Rank

Weighted GPA with Bonus Points are used to determine class rank. All classes taken by the student are calculated in the GPA. More than one student may share class rank, including that of Valedictorian and Salutatorian.

CCSD Policy states: "All students may repeat courses. Additional credit will not be granted; the higher grade will be recorded in the course history and the lower grade replaced with a repeated course notation (RP)."

CLASS OF 2017 HIGHLIGHTS

249 Graduates (100% Graduation Rate)

3 Valedictorians

1 Salutatorians

89 Advanced Honors Diplomas

126 High Honors Graduates

22 Honors Graduates

13 President's Awards for Academic Excellence

6 National Merit Finalists

2 United States Presidential Scholarship Semifinalists

161 Program Honor Medallion Recipients

214 Governor Guinn Millennium scholarship eligible

\$9,695,024.00 was reported in scholarships and academic awards.

Median ACT Scores

English	Mathematics	Reading	Science	Composite
23.5	23.7	24.0	23.3	23.7

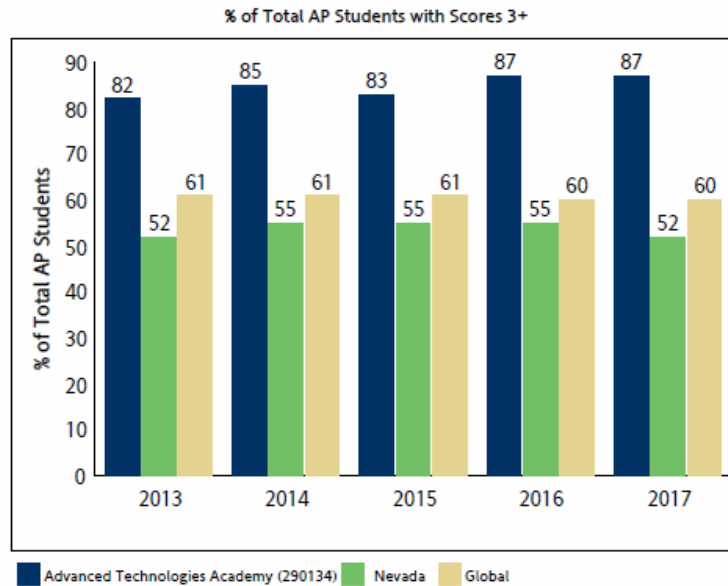
Median SAT Scores

Evidence Based Reading and Writing	Mathematics
573	579

ADVANCED PLACEMENT DATA

AP® Five-Year School Score Summary (2017)

Advanced Technologies Academy (290134)



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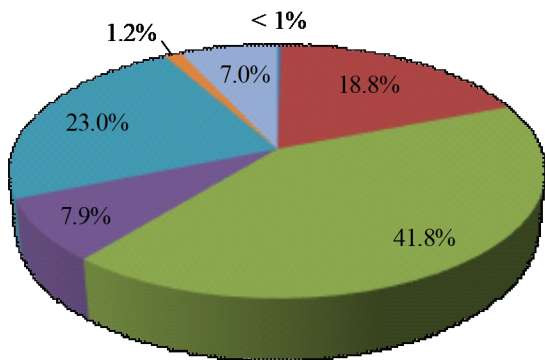
Total AP Students Testing (2017): 565

<u>School Totals</u>	<u>Exam Score</u> 5	<u>Exam Score</u> 4	<u>Exam Score</u> 3	<u>Exam Score</u> 2	<u>Exam Score</u> 1	<u>Total Exams</u>
Number of Exams	231	388	429	249	85	1,382
Percentage of Total Exams	17	28	31	18	6	100
Number of AP Students	169	282	297	200	76	

AP Scholar Awards (2017)

National AP Scholars	AP Scholars with Distinction	AP Scholars with Honor	AP Scholars
13	95	39	106

2016-2017 STUDENT DEMOGRAPHICS



- American Indian/ Alaskan Native
- Asian
- Hispanic/ Latino
- Black/ African American
- White
- Native Hawaiian/ Other Pacific
- Two or More Races

2017-2018 Total School Enrollment:
1,132 Students

42.8% of students qualified for the
Free and/or Reduced Lunch program
for the 2017-2018 school year.

PROGRAM AREAS OF STUDY

A-TECH offers eight magnet CTE programs. In addition to their core high school academic courses, students are scheduled into magnet program courses that correspond with their graduation year. These courses are completed in sequence, according to grade level.



Architectural Design

Students in Architectural Design develop industry drawing standards in two and three-dimensional drawing techniques, rendering, and animation to prepare for fields in architecture and engineering. Students test their skills through participation in local and national design contests and in preparing for Autodesk Certification. Upon successful completion of this program, students will have acquired entry-level skills for employment in this field.



Business Management

Students are prepared with the principles and operations of business and management found in today's technologically-advanced economy. The curriculum prepares students for customer relationships and multiple forms of management associated with business. Economics, finance, operations, and professional development are emphasized throughout the program. The appropriate use of technology and industry-related equipment is an integral part of the program.



Computer Science

In Computer Science, students focus on programming in C++ and Java. The programming experience is enhanced by the use of several IDEs such as CodeBlocks, BlueJ, IntelliJ, and many more. It also incorporates the 21st Century Curriculum and prepares students to move forward in their chosen fields, including software development, game development, app development, or any other field that students may choose to pursue. Students are further prepared through their development of workplace readiness skills and employability skills. Students have several opportunities to participate in internships, hackathons, student-led workshops, and the Hour of Code.



Engineering

Students in Engineering develop knowledge of engineering principles through the Project Lead the Way Curriculum. The curriculum is designed to encompass all four years of high school. Students develop knowledge in technological and engineering problem-solving skills through hands-on and project-based activities. Students design, test, and actually construct circuits and devices, such as smart phones and tablets. Students work collaboratively on a culminating capstone project.



Graphic Design

Students focus on the professional areas of graphic design, computer art, and video. Students develop skills in the areas of drawing, digital and visual communications, design critiquing, portfolio development, and presentations. Projects, design competitions, and internships allow students to apply their skills at professional levels.



IT Networking

In Networking Technology, students develop the skills necessary to support microcomputers with various platforms and to administer network systems. Students are taught the fundamentals of Local Area Network design and the responsibilities of a system administrator. Students prepare for Cisco CCNA, and A+ Certification.



Legal Studies

Students in this program focus on civil and criminal law with practical training in the skills necessary for pursuing a law-related occupation. Students will explore themes in both civil and criminal law reflecting American social, moral, political, and economic values. The appropriate use of technology and industry standard equipment is an integral part of this program.



Web Design & Development

Courses in this program provide students with the skills necessary to create websites for a variety of purposes. Students develop their knowledge of content, placement, use of color and graphics, typography, and message using industry standard software. Students use various web design languages, design concepts, and layout theories to create websites. Upon successful completion of this program, students will have acquired entry-level skills for employment in this field.

AWARDS & RECOGNITION

U.S. News and World Report · America's Top 300 Best High Schools 2013 – 2017
Ranked by *Newsweek* as one of America's Best High Schools 2017
Recognized by the *Washington Post* as the 333rd Most Challenging High School in America 2017
Winner of National ACT Exemplary High School in College and Career Readiness 2016
Niche.com ranked A-TECH as the Best College Prep Public High School in Nevada 2017
Ranked #1 high school in Nevada by *Business Insider* 2016
Ranked #1 public high school in Nevada by *startclass.com* 2016
National Excellence in Action Award in Architecture 2016
Newsweek's "Beating the Odds" ranking for preparing economically disadvantaged students for college 2015 - 2016
Recipient of the Magnet Schools of America · Dr. Donald P. Waldrip Magnet School of Merit · Award of Excellence 2014
Magnet Schools of America · School of Excellence 2013, 2014, 2016 and 2017
U.S. Department of Education National Blue Ribbon School 2003 and 2011
Las Vegas Business Press State of Nevada INNOVATION Award Honoree 2017
Governor's Designated STEM School, State of Nevada 2017
Nevada Department of Education · Exemplary High School
Clark County School District · Excellence in Education Hall of Fame
Student Council National Gold Council of Excellence Award 2017
Nevada Society of Journalism Excellence in News Writing Award, 2016
Chess Team – 1st Place at State Competition, 2015-2017
Nevada Academic World Quest State Champions 2017
Science Olympiad – 3rd Place at State Competition 2017
Nevada Mock Trial Team – 5th Place at State Competition, 2017
Speech & Debate Team, Clark County Tournament – 1st Place Small School 2015 - 2017