

ADVANCED TECHNOLOGIES ACADEMY

CLASSES OF 2011 AND 2012 PROFILE

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THE SCHOOL

Advanced Technologies Academy (A-TECH) is a magnet high school established in 1994 in Las Vegas, Nevada. It was designed with a well-developed technology infrastructure. The faculty members of the academy are trained in and are representative of the field(s) in which they teach. Additional training and enhancement are provided for academy faculty in all facets of computer hardware, software, and networking technology.

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. The academy opened as the first fully computer networked technology school in the state of Nevada. It houses approximately 1100 computers with full Internet access. With a student/teacher ratio of 22:1, our curriculum ensures that a student is not only knowledgeable in theory but also experienced through hands-on, highly individualized learning techniques. Qualified students participate in product development, business partnerships, and internships during their tenures at the academy.

Through an application process, students are selected for enrollment 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 academic level is rigorous, requiring students to be focused, to develop good study and time management skills, and to be organized. After-school program enhancement activities and tutorial sessions are offered.

Courses are provided in English, science, mathematics, social studies, health/physical education, humanities, and foreign language as well as courses in the student's selected program area of study. The use of technology in all classes amplifies the math/logic-based thinking activities of the Advanced Technologies Academy student. Creative thinking, problem-solving, decision-making, skill expansion, and project-based learning are encouraged 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 a team player environment. The student population is ethnically diverse and commutes 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 A-TECH Intelligentsia, American Institute of Architecture Students (AIAS), Art, Band, Board Game, Chess, DECA, Forensics, FBLA, Global Studies, Guitar, Journalism, Key Club International, Mock Trial, NHS, Orchestra, Recycling, Science Bowl, Skills USA, Student Ambassadors, Student Council/A-TECH Club Council, Varsity Quiz, and Yearbook. Students at Advanced Technologies Academy participate in interscholastic sports at their zoned high schools.

AWARDS & RECOGNITIONS

U.S. Department of Education 2011 National Blue Ribbon School
Student Council National Gold Council of Excellence Award
Morehead-Cain Scholarship Nominating School
Siemens Award for Advanced Placement in Science Teaching
Magnet Schools of America · School of Distinction
U.S. News and World Report · Silver Medal · America's Best High Schools 2008 - 2011
Nevada Department of Education · Exemplary High School
Clark County School District · Excellence in Education Hall of Fame
Four Milken Educator of the Year Award Recipients
Nevada Presidential Award for Excellence in Mathematics Teaching

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.

PROGRAM AREAS OF STUDY

In addition to their core high school academic courses, students enroll in one of the following eight program areas:



Legal Studies

Students in this program focus on civil and criminal law with practical training in the skills necessary for pursuing a career as an attorney and paralegal. Students utilize hardcopy and online resources including the national reporter system. Specialized equipment is provided to aid students in analyzing crime scenes.



Business & Finance

Students are prepared with the principles and operations of business and finance found in today's technologically advanced global economy. The curriculum includes marketing, entrepreneurship, financial service training, and accounting. Classes are enhanced by multimedia presentations, business simulations, Internet research, electronic mail, time management and the preparation of a professional business plan.



Information Technology

Courses in this program provide students with the most diverse technological background of any computer area. Training in microcomputer operating systems, business applications, accounting, programming, system design and management emphasized. Students are prepared for Microsoft Office Specialist Certification, Master Certification Exam, and A+ Certification.



Computer Science

In Computer Science, students focus on programming in Visual Basic and Java. The programming experience is enhanced by multimedia and website design for business, mathematics, science, and industry. Multimedia training in the techniques of three-dimensional modeling, morphing, animation and development of computer games is provided. Through website classes, students develop skills in designing and maintaining cutting edge professional websites.



Architectural Design

Students in Architectural Design develop industry drawing standards in two and three-dimensional drawing techniques, rendering, and animation to prepare for fields of architecture and engineering. Students test their skills through participation in local and national design contests and in preparing for Autodesk Certification.



Engineering

Students in the Engineering program 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.



Computer 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 level.



Networking Technology

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 the Novell CNA, Microsoft MCSA, Cisco CCNA, and A+ Certification.

*****GRADE POINT AVERAGE (GPA) SUMMARY*****

Our standard GPA 4.0 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 (below 60%).

Weighted GPA: **Weighted Grade Point Averages (GPAs)** cap is limited to no more than twenty-eight semesters of Honors and/or AP courses. A weighted GPA factor of .050 may be earned for up to four semesters of AP courses and a .025 weighted GPA factor for twenty-four semesters of Honors courses. The highest possible GPA under this system is a 4.80. If only Honors level courses are taken, a weighted GPA factor of .025 is earned for twenty-eight semesters of Honors courses. The highest possible GPA under this system is a 4.70.

Class Rank: **Weighted Grade Point Averages (GPAs)** are used to determine class rank. All classes taken by the students are included in the GPA. More than one student may share class rank, including that of Valedictorian and Salutatorian.

* Students are not limited to the number of Advanced Placement courses they can take per year.

*****CLASS OF 2012 GRADE DISTRIBUTION*****

This Cumulative Grade Point Average (GPA) includes six semesters, grades 9-12. There are 223 students in the Class of 2012.

	<u>GPA (WEIGHTED)</u>	<u>NUMBER OF STUDENTS</u>
A	4.800-4.004	77
B	3.967-3.000	88
C	2.995-2.010	58

*****ADVANCED PLACEMENT DATA FOR 2011*****

Two hundred fourteen (214) students took four hundred nine (409) exams. The results are as follows:

<u>School Totals for this View:</u>	5	4	3	2	1	Total Exams
Number of Exams	79	127	114	54	35	409
Percentage of Total	19	31	28	13	9	100

Students are **not** required to sit for the Advanced Placement Examination.

OVERALL MEAN SCORES

*****SAT I – CLASS of 2012*****

SAT	Test Takers	Critical Reading	Mathematics	Writing
Total	123	561	581	536

*****ACT – CLASS of 2011*****

ACT	Test Takers	English	Mathematics	Reading	Science	Composite
Total	69	24.6	26	24.8	24.5	25.2

ACADEMIC INFORMATION

ADVANCED PLACEMENT COURSES:

Biology
 Calculus AB/BC*
 Chemistry*
 Computer Science A*
 English Language/Composition
 English Literature/Composition
 Environmental Science
 Physics C
 Psychology
 Spanish Language*
 Statistics
 United States Government
 United States History
 World History

HONORS COURSES:

English:
 American Literature
 Composition
 English I & II
 English Literature
 World Literature

Social Studies:
 Government
 United States History
 World History

Foreign Language:
 Spanish II & III
 Spanish Speakers II & III

Mathematics:

Algebra I
 Algebra II/Trigonometry
 Geometry
 Calculus
 Pre-Calculus

Science:

Biology
 Chemistry
 Physics

Technology:

Internetworking III/IV

*Offered based on class enrollment.

SCHOLARSHIPS AND AWARDS

- Advanced Technologies Academy graduating Class of 2011 received approximately \$10,000,000 in scholarship awards.
- One student qualified for the National AP Scholar Award.
- Nineteen students qualified for the AP Scholar with Distinction Award.
- Fifteen students qualified for the AP Scholar with Honor Award.
- Thirty-two students qualified for the AP Scholar Award.
- One National Hispanic Recognition Scholar
- One Gates Millennium Scholar
- One National Merit Scholarship Recipient - 2011
- Four National Merit Scholarship Semi-Finalists - 2011-2012

COLLEGE ACCEPTANCES (2008-2011)

Academy of Art and Design – San Francisco
 Air Force Academy
 American University
 Arcadia University
 Azusa Pacific University
 Brown University
 Boston College
 Boston University
 Brigham Young University
 Cal Poly – San Luis Obispo & Pomona
 California Lutheran University
 Carnegie Mellon University
 Case Western Reserve University
 Chapman University
 Clark University
 Claremont-McKenna College
 Colorado School of the Mines
 Colorado State University
 Cooper Union
 Cornell University
 CW Post University
 Dartmouth College
 Davidson College
 Digipen University
 Duke University
 Embry-Riddle Aeronautical University
 Furman University
 George Washington University
 Georgia Institute of Technology
 Georgetown University
 Gnomon School of Visual Effects

Hampton University
 Harvard University
 Harvey Mudd College
 Haverford College
 Hawaii Pacific University
 Hawaii University
 Howard University
 Indiana University
 John Jay College of Criminal Justice
 Johns Hopkins University
 Laguna College of Art and Design
 Loyola Marymount University
 Miami University of Ohio
 (MIT) Massachusetts Institute of Technology
 New York University
 Northeastern University
 Northwestern University
 Occidental College
 Otis College of Art & Design
 Pacific University
 Pennsylvania State University
 Pepperdine University
 Pitzer College
 Pomona College
 Pratt Institute
 Princeton University
 Reed University
 Rensselaer Polytechnic Institute
 Rice University
 Ringling College of Art and Design
 Rochester Institute of Technology

Rose-Hulman Institute of Technology
 Santa Clara University
 Savannah college of Art and Design
 Scripps College
 South Dakota School of the Mines
 Southern Methodist University
 Stanford University
 Swarthmore College
 Syracuse University
 Temple University
 Tufts University
 U.S. Military Academy West Point
 UC Berkeley/Davis/Irvine/San Diego/Santa Barbara
 UCLA
 University of Arizona
 University of Chicago
 University of Colorado - Boulder
 University of Denver
 University of Michigan
 University of Nevada - Las Vegas & Reno
 University of Notre Dame
 University of Pennsylvania
 University of Puget Sound
 University of Southern California
 University of Texas-Austin
 University of the Pacific
 University of Virginia
 University of Washington - Seattle
 Villanova University
 Yale University