

67
AL Counties
Represented
by Alumni

100% College Acceptance

16:1 Student:Teacher Ratio

STEM
CERTIFIED
through
Cognia

100% of faculty have Ph.D. or Master's degree

200+ courses taught at honors level or university equivalent



OUR MISSION

The Alabama School of Mathematics and Science offers students educational opportunities they will not find anywhere else in the state of Alabama. ASMS is set apart by its academic rigor, residential learning environment, leadership opportunities, and research focus for students.

ABOUT ASMS

The Alabama School of Mathematics and Science is the state of Alabama's only fully residential public high school for highly motivated sophomores, juniors, and seniors seeking advanced studies in math, science, and the humanities. The Alabama State Legislature founded ASMS in 1989 to better prepare Alabama's future leaders for STEM (science, technology, engineering, and math) careers. ASMS's mandate encourages it to offer a challenging academic environment for students from all around Alabama and especially to those from underserved counties.

ADMISSIONS

Rising 10th and 11th graders from across Alabama apply to attend ASMS. The Admissions Committee receives nearly 600 applications per year and selects approximately the top 17% of applicants. The committee considers ACT score, GPA, extracurricular activities, motivation, maturity, and campus diversity in choosing the best students from the state's 67 counties.

Curriculum

ASMS operates on an accelerated system of three academic terms per year. Students benefit from a challenging curriculum that includes AP courses, honors courses, electives modeled on university seminars, and individualized independent study courses. Access to AP courses and upper-level electives requires department or instructor approval. All students are required to enroll in at least five academic courses per term, but many choose to take on additional research hours and electives in their areas of interest.

Students must complete a minimum of 26.5 Carnegie Units in coursework. Those who surpass the curriculum requirement in a subject area by 1.5 CU may graduate with a "Concentration" in the subject, while those who exceed the requirement by 3.0 CU may earn a "Concentration with Distinction" designation. All concentration coursework must meet subject-area GPA requirements set by the department.

Required Academic Coursework

-	
Biology	1.5 CU
Chemistry	1.5 CU
Computer Science	0.5 CU
English	4.0 CU
Fine Arts	0.5 - 1.0 CU
General Electives	1.25 - 1.50 CU
History	4.0 CU
Mathematics	4.0 CU
Physical Education and Health	1.5 - 2.0 CU
Physics	1.5 CU
World Languages	2.0 CU
Additional Elective Credits	4.0 - 5.25 CU

Student Body Demographics

RACE / ETHNICITY STU	DENTS	PERCENT
Black or African American	53	18%
Caucasian	155	52%
Hispanic	22	7%
Asian	39	13%
Biracial or Multiracial	15	5%
Native American or Alaskan	13	4%
Prefer not to answer	4	1%
Total	301	100%
YEAR IN SCHOOL TOTAL STUDENTS		
Seniors		107
Juniors		109
Sophomores		85
Total		301
ALABAMA COUNTIES REPRESENTED: 49		

College Preparedness

All ASMS instructors hold advanced degrees in their subject areas and most have experience teaching at postsecondary institutions. All courses are taught at the Honors level or above. Most academic courses are modeled on university equivalents and are taught using college textbooks. Students must maintain a 2.5 GPA. Thanks to ASMS's challenging academics and college-like residential environment, our graduates begin their college experience uniquely prepared to succeed.



Grading

ASMS reports unweighted cumulative GPA, which includes transfer credits from prior schools, and weighted ASMS GPA, which does not include transfer credits. ASMS does not rank students.

Research Fellows

ASMS students are eligible to apply and be selected for the Research Fellows program. Working with the ASMS Research Coordinator and a faculty mentor, participants choose a research topic and then compile a bibliography, conduct research, prepare a paper, deliver a presentation, and defend their work. Finally, students present their projects at the ASMS Spring Research Forum. ASMS also encourages students to submit their work to professional conferences and publications when possible.

Special Projects

Between the Winter and Spring Terms, ASMS students participate in a five-day academic event known as Special Projects Week. Each student enrolls in a single intensive course that meets for six hours per day. These specialized courses are designed around the research interests of ASMS faculty, and they introduce students to the exciting challenge of academic and professional labor.

Student Life and Leadership

Students at ASMS hold leadership positions that empower them to improve their learning and residential environments. Student Government manages a total annual budget of \$39,500, which it uses to host events, invite guest speakers, and install amenities. Student Ambassadors escort visitors on campus and serve as hosts during official functions. Peer Advisors acclimate new students to dorm life, plan hall activities, and supervise cleaning responsibilities. Students invent and perpetuate memorable campus traditions from the Geekfest convention to Goofy Olympics.

Class of 2025 Statistics

GRADUATES

75 Students 100% College Bound

STANDARDIZED TEST PERFORMANCE

ACT Average Composite Score: 28

SAT Mean Evidence-Based Reading & Writing: 631

SAT Mean Mathematics: 614 SAT Mean Total Score: 1245

NATIONAL MERIT

3 National Merit Finalists

GPA

4.0 - 3.75 = 37 students

3.74 - 3.5 = 19 students

3.49 - 3.0 = 18 students

2.99 - 2.5 = 1 student

AP Data for 2025 Test Takers

Total AP Students: 141

Number of Exams: 285

Average AP Exam Score: 3.8

% of Students with Scores 3+: 95%



Academic Course Offerings

BIOLOGY

Honors Biology AP Biology Anatomy and Physiology AP Environmental Science Zoology Classical Genetics Marine Biology **Biological Systems** Microbial Ecology Oceanography Paleontology Veterinary Medicine History of Microbiology **Evolution and Biodiversity** Molecular Biology Biology Research

CHEMISTRY

Introductory Chemistry
General Chemistry
Organic Chemistry
AP Chemistry
Intro to Organic Chemistry
Biochemistry
Inorganic Chemistry
Environmental Chemistry
Chemistry Research
Nuclear Chemistry

COMPUTER AND INFORMATION SCIENCE

Computer Science: Principles AP Computer Science Database Design & SQL Data Science w/ Python Webpage Development App Development Advanced C# Advanced Java Advanced Web Development Computer Ethics Computer Security Fundamentals Cybersecurity Fundamentals of Programming Microcomputer Applications Computer Research **Networking Fundamentals**

ENGLISH

AP English Language Sophomore English American Literature I & II Dystopian Novel AP English Literature British Literature I & II African-American Literature Speech Communication Journalism, Media Literacy, & Mass Communication Creative Writing Shakespeare on Stage Adv Speech Communications Out of the Canon Victorian Women's Studies Writing about Film **Gothic Studies** Survey of World Drama English Research Magical Realism in Literature

FINE ARTS

AP Studio Art
Graphic Design
Survey of the Arts: Music
Survey of the Arts: Visual Arts
Intro Music Theory
Advanced Music Theory I, II, III
Broadway Blues & Jazz
Theater Arts/Production
Advanced Art I, II, III
Sight Singing & Ear Training
Walt Disney's America

GENERAL ELECTIVES

ASMS Research Fellows Debate Qualitative Research Methods Mythology Intro to Psychology AP Psychology Philosophy of Science

HISTORY

Adv American Studies I & II Economics Adv American Government American Minority Relations Rock-n-Roll Revolutions World War I & II AP US History Post-1945 US History Civil War America in the 1950s Heroes & History Ethics & Govt Policy Comparative Religions Human Geography Human Geography II AP Human Geography Terrorism & Violence The New South The Romantic Era Western Thought II Women of the Renaissance America and the World History Research Urbanism AP World History

MATHEMATICS

Geometry Intermediate Geometry Intermediate Algebra Accelerated Algebra Trigonometry Precalculus AP Precalculus Review AP Calculus Review **AP Statistics Review** Differential Calculus Integral Calculus BC Calculus Introduction to Statistics Visual Mathematics Financial Mathematics Number Theory Multivariable Calculus I & II Differential Equations Linear Algebra

Problem Solving
Topology
Advanced Geometry
Complex Analysis
Finite Math
Geometric Design
Intro Real Analysis I & II
Intro to Game Theory
Discrete Math
Counting & Probability I & II
Math Research

PHYSICS

Intro to Physics Intro to Engineering Flight Studies Honors Physics AP Physics 1 AP Physics 2 Robotics AP Physics C Intro to Astronomy Intro to Materials Science Intro to Medical Physics Mechanical Engineering Fundamentals of Engineering Quantum & Relativity Principles of Biophysics Lasers and Holography Computational Materials Science Physics Research **Competition Robotics**

WORLD LANGUAGES

Beginning French Intermediate French Advanced French French IV & V Readings in French Beginning German Intermediate German Advanced German German IV & V German for Engineers Readings in German Beginning Spanish Intermediate Spanish Spanish IV Advanced Spanish Reading Program Abroad: Germany & Spain

Five-Year Matriculation

Alabama A & M University **Auburn University** Auburn University at Montgomery Binghamton University Boston College **Boston University Brown University** California Institute of Technology Coastal Alabama Community College Colorado State University Columbia College Chicago Columbia University Columbus State University **Duke University** Florida Southern College Fordham University Georgia Institute of Technology

Harvard University Harvey Mudd College Howard University Huntingdon College IE University Jacksonville State University Johns Hopkins University Lehigh University Massachusetts Institute of Technology Mississippi State University Mississippi Valley State University Northeast Alabama Community College Northwestern University Ohio State University Oxford College of Emory University Princeton University Rensselaer Polytechnic Institute Rhodes College Rice University Rose-Hulman Institute of Technology Salem College SUNY at Purchase College Saint John's College Sarah Lawrence College Spelman College Stanford University Trinity University Troy State University Tulane University Tuskegee University United States Air Force Academy United States Coast Guard Academy University of Alabama University of Alabama - Birmingham University of Alabama - Huntsville University of Arizona University of California - Los Angeles University of Florida University of Michigan University of Montevallo University of Pennsylvania University of North Alabama University of South Alabama University of South Florida University of Southern Mississippi University of Tennessee - Knoxville University of Texas - Austin University of West Alabama University of West Florida Vanderbilt University Vassar College Wallace Community College Western Carolina University

William Carey University

Yale University

Xavier University of Louisiana

