

Math and Science Academy (MSA) Information

What is MSA? The Math and Science Academy is a program of study centered on science, technology, engineering, and math (**STEM**) course work and is designed to allow for a fluid transition into STEM programming at the collegiate level.

Who is an ideal candidate for MSA? Any student who enjoys the rigor of accelerated courses, manages their time well, and thrives and enjoys coursework centered around STEM.

General Requirements of the 4 Year Program:

It is expected that students **enter into the program with Algebra 1 completed** in their middle school years or the summer before entering into 9th grade.

9th and 10th graders turn in applications for the underclassman cohort placement.

10th Graders turn in an application for Upperclassman Distinction Program. If a student elects not to apply for MSA distinction but wishes to continue in courses with academic rigor, they can continue on in MSA type courses and programming without earning the MSA distinction diploma.

Requirements to Graduate With Distinction:

Complete a minimum of NINE credits of high school HONORS/AP level math and science courses with grades of A's and/or B's in the courses. In the scope of the 4 years that tends to look like 5 math courses and 4 science courses **OR** 5 science course and 4 math courses.

Sample Math and Science Coursework Layout:

9 th Grade	10 th Grade	11 th Grade	12 th Grade
1. Geo-Trig Honors (Required)	2. Algebra II Honors (Required)	3. Trig Pre-Calc. Honors (Required)	4. AP Calc A/B or B/C (Required)
5. Biology Honors (Required)	6. Chemistry Honors (Required)	7. Advanced Physics Honors (Required)	8. Science Elective from approved list*
9. Junior (11 th) <i>or</i> Senior (12 th) year complete one more math or science course from approved list*			

*Approved list of courses include: Human Anatomy and Physiology, AP Statistics, AP Computer Science, AP Biology, AP Environmental Science & AP Chemistry

Additional distinction requirements:

- Complete a minimum of **TWO** high school Honors English courses or **one year of College English Dual Enrollment** (unweighted GPA of 2.6 required for Dual class).
- Complete at least **TWO** consecutive years of a foreign language.
- Participate in **TWO** approved science or math competitions (extended preparation 30 hours).
- Participate in the **state math contest** (if applicable) and **events** sponsored by MSA.
- Complete an **80 hour senior research/internship** & participate in **poster session**.

Program Contacts:

- 11th & 12th Grade Cohort & Program/Distinction Advisor: **Chris Brandt/** CBrandt@susd.org/ 480-484-7100 Ext 7186/ Room # 312
- 9th and 10th Grade Cohort: **Raymond Miller/** RMiller@susd.org/ 480-484-7100 Ext 7179/ Room # 378
- Event Coordinator and Science Advisor: **Susan Lindberg/** SLindberg@susd.org / 480-484-7100 Ext 7186/ Room # 312
- Academic Support: **Leanne DeFay/** LDeFay@susd.org/ 480-484-7100 Ext 7123/ Guidance Department
- College and Career Center: **Brandee Chan/** BChan@susd.org/ 480-484-7100 Ext 7162/ Library

CHECKLIST FOR MATH AND SCIENCE ACADEMY

- Complete (a minimum of) NINE credits of high school Math and Science
 - Geometry Trigonometry Honors (required)....

9	10	11	12
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 - Algebra II Honors (required)

9	10	11	12
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 - Trig Pre-calculus Honors (required)

9	10	11	12
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 - AP Calculus (required)

9	10	11	12
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 - AP Statistics.....

9	10	11	12
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 - _____approved alternate mathematical study & requirements.

9	10	11	12
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 - _____
 - Biology Honors (required)

9	10	11	12
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 - Chemistry Honors (required)

9	10	11	12
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 - Advanced Physics Honors (required)

9	10	11	12
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 - Human Physiology and Anatomy.....

9	10	11	12
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 - AP Biology.....

9	10	11	12
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 - AP Chemistry

9	10	11	12
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 - AP Environmental Biology

9	10	11	12
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 - _____approved alternate scientific study and requirements.

9	10	11	12
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 - _____

- Complete (a minimum of) two credits of high school Honors English and/or one year of college English.
 - English Honors I
 - English Honors II
 - English Honors III
 - English IV AP or College First-Year Composition (ENG 101/102)
 - Humanities Honors or [College Technical and Professional Writing and Magazine Article Writing (ENG 111 and 235)]

- Complete at least two credits of one foreign language.
 - _____

9	10	11	12
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 - _____

9	10	11	12
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- Participate in two science or math competitions (extended preparation = 30hrs).
 - _____ Date _____.
 - _____ Date _____.

- Participate in the state math contest. (if applicable)

- Student Plan Approval _____ Date _____.

- Administrator Plan Approval _____ Date _____.

- Complete a senior research or mentorship project.
 - Contact Hours (minimum 40 contact hours verified by advisor/80 total) _____
 - Report Approved (math or science academy coordinator)_____
 - Presentation (completed and approved, math or science academy coordinator)_____
 - Minimum of a 3.0 (unweighted) in core math & science classes during the entire program of study.
 - Attached Final Transcript.