



## 2017-18 Course Catalog with Electives

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*(Revised – May 2017)*

## MSA 2017-18 Courses and Electives

*Classes in red are electives; all others are required.*

### **ENGLISH**

English 6 (6<sup>th</sup> grade)  
English 7 (7<sup>th</sup> grade)  
English 8 (8<sup>th</sup> grade)  
Literature & Composition (9<sup>th</sup> grade)  
British World Literature (10<sup>th</sup> grade)  
American Literature (11<sup>th</sup>/12<sup>th</sup> grade)  
Research Writing (10-12<sup>th</sup> grade)  
Composition (10-12<sup>th</sup> grade)  
Study Skills (6<sup>th</sup> grade)  
Study Skills (8<sup>th</sup>/9<sup>th</sup> grade)  
Alternative Literature (high school)  
Speech (high school)  
Poetry (7<sup>th</sup>/8<sup>th</sup> grade)  
Speech (7<sup>th</sup>/8<sup>th</sup> grade)  
Young Adult Literature (7<sup>th</sup>/8<sup>th</sup> grade)  
AP Literature & Comp (11<sup>th</sup>/12<sup>th</sup> grade)

### **ART**

Art 8 (8<sup>th</sup> grade)  
Art 6 (6<sup>th</sup> grade)  
Art & Technology (7<sup>th</sup>/8<sup>th</sup> grade)  
Drawing (high school)  
Painting (high school)  
Digital Visual Communications I (high school)  
Digital Visual Communications II (high school)  
Sculpture and Craft (high school)  
Ceramics (high school)  
AP Studio Art (10-12<sup>th</sup> grade)

### **PERFORMING ARTS**

Concert Band (6<sup>th</sup> grade)  
Wind Band (7<sup>th</sup>/8<sup>th</sup> grade)  
Wind Ensemble (high school)  
World of Music (6<sup>th</sup> grade)  
Choir for credit (high school) zero hour  
Symphony for credit (high school) zero hour  
Wind Ens. online for credit (high school)

### **SPANISH**

Basic Spanish (teacher recommendation)  
Intro to Spanish (teacher recommendation)  
Spanish 6 (6<sup>th</sup> grade)  
Spanish 7 (7<sup>th</sup> grade)  
Spanish I (8<sup>th</sup> grade)  
Spanish II (9<sup>th</sup> grade)  
Spanish III (10<sup>th</sup> grade)  
Spanish IV (11<sup>th</sup>/12<sup>th</sup> grade)  
AP Spanish Language (11<sup>th</sup>/12<sup>th</sup> grade)

### **MATH**

Pre-Algebra (6<sup>th</sup> grade)  
Algebra I (7<sup>th</sup> grade)  
Algebra II (8<sup>th</sup> grade)  
Algebra III (9<sup>th</sup> grade)  
Pre-Calculus (10<sup>th</sup> grade)  
Calculus (11<sup>th</sup>/12<sup>th</sup> grade)  
Math Skills (6<sup>th</sup> grade-teacher recommendation)  
Geometry (high school)  
AP Calculus I (10-12<sup>th</sup> grade)  
AP Calculus II (11<sup>th</sup>/12<sup>th</sup> grade)  
AP Statistics (10-12<sup>th</sup> grade)

### **HEALTH/PE**

PE 6 (6<sup>th</sup> grade)  
PE 7 (7<sup>th</sup> grade)  
PE 8 (8<sup>th</sup> grade)  
PE 9 (9<sup>th</sup> grade)  
Health 7 (7<sup>th</sup> grade)  
Health 9 (9<sup>th</sup> grade)

### **SOCIAL STUDIES**

MN History (6<sup>th</sup> grade)  
US Studies (7<sup>th</sup> grade)  
Global Studies (8<sup>th</sup> grade)  
Ancient World History (9<sup>th</sup> grade)  
Modern World History (10<sup>th</sup> grade)  
American History (11<sup>th</sup>/12<sup>th</sup> grade)  
Political Science (11<sup>th</sup>/12<sup>th</sup> grade)  
Economics (11<sup>th</sup>/12<sup>th</sup> grade)\  
Sociology  
African American History (11<sup>th</sup>/12<sup>th</sup> grade)  
AP Psychology (11<sup>th</sup>/12<sup>th</sup> grade)

### **SCIENCE**

Life Science (6<sup>th</sup> grade)  
Earth Science (7<sup>th</sup> grade)  
Physical Science (8<sup>th</sup> grade)  
Biology (9<sup>th</sup> grade)  
Chemistry (10<sup>th</sup> grade)  
Physics (11<sup>th</sup>/12<sup>th</sup> grade)  
Engineering (7<sup>th</sup>/8<sup>th</sup> grade)  
Anatomy & Physiology (10-12<sup>th</sup> grade)  
Science of Flight (high school)  
Taste of Science (high school)  
AP Biology (9-12<sup>th</sup> grade)  
AP Chemistry (10-12<sup>th</sup> grade)  
AP Physics (11<sup>th</sup>/12<sup>th</sup> grade)

# **Grading, Credits, and Testing**

## **Grading Procedure for Required Courses**

All students at MSA must earn at least a D- or better in each of the required courses (except where it is noted in the math program). No credit will be given for a portion of a dropped course. A student must successfully complete the course to be awarded a credit. If a student does not complete a core course or receives a failing grade, he/she must repeat it in order to fulfill the graduation requirements.

If it is necessary to remove a student from a class during the term for disciplinary reasons, the student may not receive credit for work completed in that course.

## **Grade Appeal Process**

A parent may appeal a failing grade to the Assistant Director by filing a written complaint. If the complainant is not satisfied with the decision of the Assistant Director, the complainant may appeal to the Director.

## **Dropping a Course**

Students may drop a course within the first two weeks of the year (for year-long courses) or the first two weeks of the semester (for semester-long courses) providing there is another viable course option available for the student.

## **Incomplete Grades**

Occasionally, students need to delay completion of assignments and earning an Incomplete is the best course of action. Students are expected to complete the outstanding assignments within 2 weeks following the end of a grade period. Exceptions can be negotiated between a student and his or her teacher.

## **Mandatory Tests**

All 9<sup>th</sup> – 11<sup>th</sup> grade students will take the Preliminary Scholastic Aptitude Test (PSAT). The 11<sup>th</sup> grade students take the test as part of the National Merit Scholarship Competition. The PSAT will be on October 11th, 2017.

Minnesota Comprehensive Assessments (MCAs) are given to grades 6, 7, 8 and 10 for Reading and 6, 7, 8, 11 for Math and grades 8 and 9 for Science during April. As stated on the Minnesota Department of Education's website: "The Minnesota Comprehensive Assessments (MCAs) and alternate assessments (MCA-Modified and MTAS) are the state tests that help districts measure student progress toward Minnesota's academic standards and meet the requirements of the Elementary and Secondary Education Act (ESEA). Students take one test in each subject. Most students take the MCA, but students who receive special education services and meet eligibility criteria may take the MCA-Modified or the MTAS. All students are required to take these tests."

New to state legislation is a requirement for 11<sup>th</sup> graders to take the ACT plus writing. The 2017-2018 ACT test will be on April 3rd, 2018. This date is decided by ACT and the State.

## **Additional Ways to Earn Credits**

The following options provide unique opportunities for students to expand their course choices.

### Waiver Procedure

Students may apply to receive credit for coursework and activities completed outside of MSA and for learning gained through community and work experience. A student must receive approval from the Dean of Students and the appropriate teacher prior to doing work. On rare occasions, the Dean will consider giving credit for previous experiences. The teacher will require a demonstration of the students' learning. After reviewing the completed work, the teacher will determine if the student met the course requirements and the teacher will assign a grade. This information will be given to the Dean. Waiver forms are available from the office.

### Minnesota Dual Credit Program

Dual credit programs allow students to challenge themselves academically and earn college credit. Dual credit programs include AP, CIS (also called concurrent enrollment) classes offered in partnership with the University of Minnesota and PSEO. The Math and Science Academy supports and encourages students to stay academically challenged. To that end, we offer these dual credit programs to all qualified students. Dual credit means that students can receive both college and high school credits for these courses (college credit for AP courses is determined by the college the student will be attending after graduation).

### Post-Secondary Enrollment Options (PSEO)

Qualified sophomores, juniors, and seniors may attend eligible Minnesota post-secondary institutions with tuition, fees, and textbooks paid. Transportation and room/board are not covered. Credits earned will be applied toward MSA graduation requirements and may be accepted as college credits by post-secondary institutions.

Who Can Participate? "PSEO is open to junior and senior high school students. Each college and/or university that offers PSEO sets their own requirements for enrollment into the program. Students may take PSEO courses on a full or part-time basis. For full-time PSEO students who begin in their junior year, it is possible to graduate from high school with enough college credits for an Associate's Degree." Please note that as of 2012, 10th graders may also participate in Career and Technical Education (CTE) classes at some community colleges that offer PSEO. Students should see the Dean of Students for more information.

### Advanced Placement (AP)

The Math and Science Academy offers many AP courses. Students are not required to take the AP exam in May, but it is strongly recommended. No matter the final score on the national test, all students will receive a high school grade for all AP courses. Students who score a 3, 4 or 5 on the AP exam may request college credit for that course once they are enrolled in a college. If the score is less than 3, students will still receive high school credit for the course – the college will not require a test score. Students do not need to report their AP score to colleges.

AP Courses available at MSA during the 2016-2017 school year:

- AP Studio Art
- AP English Literature and Composition
- AP Calculus I AB
- AP Calculus II BC
- AP Biology
- AP Physics
- AP Chemistry
- AP Spanish Language and Culture
- AP Psychology
- AP Statistics

### **Math and Science Academy Summer and/or Online Course Policy**

Students may not take Math and Science Academy (MSA) core courses through any other institution such as a summer school program via a local high school or an online program. There are two exceptions to this rule. The first is for registered PSEO students who are allowed to take all classes (core and electives) PSEO during the school year. Each online class taken by PSEO students must be a semester or year-long course offered through the college where they are registered as a PSEO student. PSEO classes which substitute for MSA core courses are listed on our website. Exceptions to these (and there are many at the University of Minnesota) must receive prior approval from the appropriate MSA department and the Dean of Students.

PSEO students may take summer electives or pre-approved core classes, for credit, through their PSEO college, but tuition, textbook costs, and any other fees are the sole responsibility of the student.

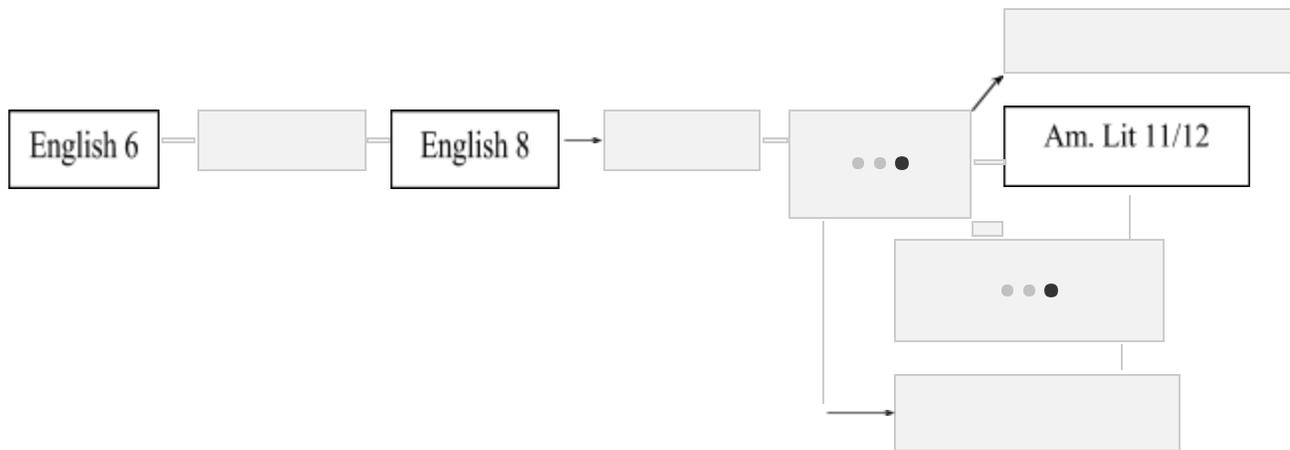
Core MSA courses may not be taken by PSEO students during the three week “May Term” at the University of Minnesota. Students will receive credit for non-core courses taken during “May Term”.

The second exception is for students who need to take a summer course for credit recovery. Credit recovery classes through local school districts are allowed. Such courses will not replace a failing grade in an MSA course, but, upon successful completion of the course, will be added to the student’s transcript and will allow the student to pass the course in question.

Many of our students take summer enrichment courses and we continue to encourage those. Courses through local schools (St. Paul School’s summer classes, the Minnesota Institute for Talented Youth program, etc.) are excellent ways to delve into specific interests in the arts, sciences, and humanities and are usually very fun as well as enriching. With documentation that the course was successfully completed, these short, non-core, courses may be included on student’s transcripts as summer classes, but will not have a grade attached to them; these do not need prior approval.

## English Program

The English program focuses on improving student's writing skills, grammar, and vocabulary. We help students practice skills to enable them to write and speak clearly. The literature ranges from poetry and short stories to the classics and modern novels, allowing students to participate in different types of literary analysis. Grammar is taught directly and indirectly through literature and writing. Compositions range from five-paragraph essays to literary analysis to informative research papers. Oral presentations are also an essential element of our curriculum. Additionally, students develop study and test-taking skills.



### Required Courses:

#### **English 6: 6<sup>th</sup>**

English 6 will consist of reading, writing, speaking, and listening. Students will be reading novels, short stories, and nonfiction, creating book projects, working on technical and creative writing assignments, completing journal entries, and proofreading. This class will also include spelling, vocabulary, grammar, and writing mechanics, as well as giving speeches and presenting skits. Reading assignments may include *Touching Spirit Bear*, *A Wrinkle in Time*, and *The Witch of Blackbird Pond*.

#### **English 7: 7<sup>th</sup>**

English 7 includes the essential components of language arts: reading, writing, speaking, and listening. Units of study focus on parts of speech, sentence structure, and paragraph development; elements of fiction and character analysis; myths, tales, and legends; non-fiction reading and informative writing; spelling and vocabulary. Texts include short story selections, *Downriver*, *The Call of the Wild*, and *The Miracle Worker*.

## **English 8: 8<sup>th</sup>**

English 8 encompasses all areas of language arts. Students will read novels, plays, poetry, and non-fiction. Students will spend time writing technical essays and a variety of other practical writing pieces. Throughout the year, students will study writing mechanics, usage, and grammar, as well as vocabulary. Students will also give speeches and class presentations. Reading assignments include *The Outsiders*, *The Diary of Anne Frank*, *Roll of Thunder Hear My Cry*, *The Giver*, and *Twelve Angry Men*.

## **Literature and Composition: 9<sup>th</sup>**

Students will be immersed in novels, short stories, and a play. They will be working on different writing styles: persuasive, compare/contrast, and creative-research. The study of grammar and vocabulary will also add to providing the students with the reading, writing, speaking, and listening skills essential for today's students. Reading assignments include: *Of Mice and Men*, *To Kill a Mockingbird*, *Fahrenheit 451*, *The Tragedy of Romeo and Juliet*, and *Speak*.

## **British /World Literature: 10<sup>th</sup>**

This year course is required for all 10<sup>th</sup> graders at MSA. The literature of Great Britain is one of the oldest national literatures in the Western world. Many world famous masterpieces were written in Scotland, Wales, Ireland, and England. Students will take a chronological walk through British literature. They will read *Beowulf*, Medieval literature, Shakespeare's *Macbeth*, Mary Shelley's *Frankenstein*, romantic poems, Golding's *Lord of the Flies*, George Orwell's *1984*, and finally, Samuel Beckett's *Waiting for Godot*. For the World Literature portion, students will analyze representative masterpieces of world literature and make a comparative study of genres and themes as well as cultures and historical periods from Africa, Europe, Asia, North and South America. This course gives students an opportunity to examine literary works such as drama, short stories, poetry, and novels in order to heighten the student's awareness of the international and timeless themes in literature. Reading assignments include: *Cyrano de Bergerac*, *Metamorphosis*, *Things Fall Apart*, *A Small Place*, *A Doll's House*, and *Hamlet*.

## **Composition for Real Life: 10<sup>th</sup> – 12<sup>th</sup>**

This semester course gives students practice with "real world" technical and business writing. Students will work on proofreading skills, ACT vocabulary skills, writing for a specific audience, and the three "C's" of technical writing (clear, concise, complete). The writing will focus on: short clear, concise, and complete pieces of writing, business letters, college essays, professional emails, collaborative writing, presentations that effectively include text, graphics, images and sound with writing.

## **Research Writing: 10<sup>th</sup> – 12<sup>th</sup>**

This semester course is designed to help students practice an effective research writing process: prewriting, drafting, revising, editing, and publishing. Students will work on developing complex sentences with grammar exercises throughout the course; also, they will write four academic essays: a persuasive essay, a how-to research paper, a narrative research paper, and a multi-genre research paper. Each research paper will be written within a creative writing format.

## **American Literature: 11<sup>th</sup> – 12<sup>th</sup>**

This year long course will trace the history and development of literature in America from the colonial days to the early twentieth century. Students will have a deeper understanding of the American experience after reading books that include *The Crucible*, *Catcher in the Rye*, *The Grapes of Wrath*, *Adventures of Huckleberry Finn*, *Death of a Salesman*, and *The Things They Carried*. Students will also be analyzing poetry from the Harlem Renaissance.

## **English Elective Courses:**

### **Study Skills: 6<sup>th</sup>**

Students will learn skills needed to be successful at the Math and Science Academy. The course will cover how to use a planner, how to take notes, how to read textbooks for maximum retention, how to study for a test, what sources to use in writing and research, the importance of making a schedule, and how to stay organized. The course will also cover other needs of students as these needs arise. Finally, study skills is also a time when the 6th graders get to meet with high school mentors, who make the new students feel welcome and help them navigate the various components of life at MSA.

### **Poetry: 7<sup>th</sup>-8<sup>th</sup>**

Through reading, discussing, analyzing, and writing poems, students will determine what poetry, in many forms and elements and themes, means to them. Poetry study will help broaden the experiences of readers with new concepts and fresh outlooks on the ordinary things that surround them. Besides semantic understanding of poetry, sounds, images, rhythms, and figures of speech enhance students' comprehension and appreciation. Students will analyze how the form or structure of poetry contributes to meaning. Also, students will determine the themes of poems and analyze their developments. Forms of poetry will include chorals, haiku, headline poems, sonnets, epic poetry, and villanelles. Elements and themes will include alliteration, connotation, rhyme scheme, allusion, hyperbole, motif, romanticism, transcendentalism, and realism.

### **Young Adult Literature: 7<sup>th</sup>-8<sup>th</sup>**

This class will look at award-winning Young Adult Literature. Students will look at the criteria for these awards and discuss what makes a book "award-winning." With these criteria in mind, students will read various works of Young Adult Literature which have won literary awards in recent years, paying close attention to the award-winning elements of the book, as well as other literary elements of the text.

### **Speech: 7<sup>th</sup>-8<sup>th</sup>**

Students continue to develop their skills in oral communication, their focus on individual and cooperative presentation, and their abilities to set goals and work productively. Students will improve their research, outlining, and organization skills through the speech preparation process. Students will present information and supporting evidence clearly and logically such that listeners can follow the line of reasoning. The organization, development, substance, and style of speech must connect to each purpose, as well. Students

will make strategic use of digital media to add interest to presentations and to enhance the understanding of facts, reasoning, and evidence. Also, students will use appropriate verbal and nonverbal delivery cues and improve listening skills through conducting peer evaluations. Speeches will include a group oral interpretation, an individual oral interpretation, an introduction speech, an informative speech, a demonstration speech, persuasive speeches, and a special occasion speech.

### **Study Skills: 9<sup>th</sup>**

This course is designed to help students learn and refine skills needed to be successful in the high school courses at the Math and Science Academy. These skills include: listening, speaking, reading, writing, note-taking, studying for tests, critical thinking, and time management. The course will cover how to prioritize, the importance of making a schedule, how to use a planner, how to take notes, how to read textbooks for maximum retention, how to study for a test, what sources to use in writing and research, and how to stay organized. The course will also cover other needs of students as these needs arise.

### **Poetry: 9<sup>th</sup> – 12<sup>th</sup>**

This is a semester long course. Students will study and write different forms of poetry. Students will explore literary devices, use of white space, traditional and nontraditional types of poetry.

### **Speech: 9<sup>th</sup> – 12<sup>th</sup>**

This is a semester long course. Students will write and present different types of speeches. Speeches that will be presented will include: Oral Interpretation, Introduction, How-To, Persuasive, Special Occasion, and Informative. Some speeches will be read from published works; others will be written by the student. Some speeches will be memorized as well.

### **Alternative Literature: 11<sup>th</sup> – 12<sup>th</sup>**

This will be a literature class where we read works by women authors, authors of color, Native American authors, and texts from the LGBTQ perspective.

### **AP Literature and Composition: 11<sup>th</sup> – 12<sup>th</sup>**

The AP English Literature and Composition course engages students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students consider a work's structure, style, and themes, as well as such smaller-scale elements as the use of figurative language, imagery, symbolism, and tone.

Students will be expected to complete daily reading and writing assignments as well as take several AP practice tests. For more information on this course go to:

<http://apcentral.collegeboard.com/apc/public/repository/ap-english-course-description.pdf>

## Fine Arts Program

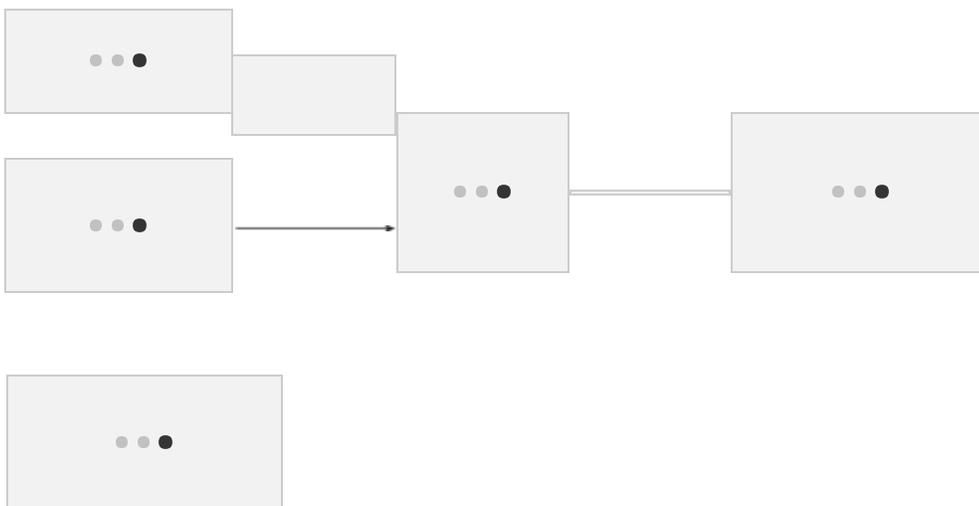
Art is an essential part of a liberal education. There are a variety of music and art courses to choose from in every grade. Additional classes may be offered based upon student interest and teacher availability. Art is required in 6<sup>th</sup> and 8<sup>th</sup> grade. Students are required to take two additional semesters of fine arts between 9<sup>th</sup> and 12<sup>th</sup> grade.

### Performing Arts:

Performing Arts at the Math and Science Academy is a comprehensive instrumental and general music curriculum that allows students of all musical backgrounds to encounter and explore the musical genre. Instrumental and non-instrumental music courses will progress from a general knowledge of music to the beginning, intermediate, and advanced stages of musical performance.

### **Performing Arts: Band**

Tracking is from the 6<sup>th</sup>-grade level to graduation 12<sup>th</sup>-grade level.



Students interested in Band who are entering the 6<sup>th</sup> grade, will be placed in the Introduction to Band class if just beginning a new instrument or placed in the Concert Band if having had, at least, one year of experience on the instrument. Continuing 7<sup>th</sup> grade students will either be placed in the Concert Band for continuing experience or in the Wind Band which is a bit more advanced. All 8<sup>th</sup> grade students going into 9<sup>th</sup> grade will move into the Wind Ensemble.

## **Performing Arts: Non-instrumental**

6<sup>th</sup> grade non-instrumental students will have the option of World of Music and/or Drumming.

## **Fine Arts Elective Courses:**

### **Choir (For credit):**

Now a curricular class - (0 hour for 9-12 grades, for credit) will be meeting on Tuesdays and Fridays from 8-9:10 a.m. 9-12 graders will have to sign up at the Back-to-school night or online to get credit. Attendance will be mandatory at all rehearsals to get credit recognition. Any questions should be directed to Mr. Shelton.

### **Symphony (For credit):**

Now a curricular class 8th hour for 9-12 grades, for credit will be meeting on Mondays and Wednesdays from 4:00-5:00 p.m. Attendance will be mandatory at all rehearsals to get credit recognition. Any questions should be directed to Mr. Shelton.

### **Introduction to Band: 6<sup>th</sup>-7<sup>th</sup>**

This course is designed specifically for the beginning instrumental student, the student who has never played a musical instrument before and/or the student learning a new instrument. Materials and techniques of instrumental performance will be presented and put to practical use according the National Arts Educational Standards for grades 6 through 8. The course will include rehearsals and performances.

### **Concert Band: 6<sup>th</sup>-7<sup>th</sup>**

This ensemble, designed for beginning to intermediate instrumentalists performs music at the Minnesota State High School League (MSHSL) Class I and II levels. These students possess a written and performing knowledge of theoretical and technical musical concepts appropriate to their skill level in accordance with the National Performing Arts Educational Standards for grades 6 through 7. These standards address issues such as solo/small ensemble/large ensemble rehearsal and performance, theory, terminology, and composition.

### **World of Music: 6<sup>th</sup>**

As a society, we tend to lock ourselves into a series of routines. We construct agendas, schedules, and timetables to the point that everyday tasks often become humdrum and boring. Well, the times they are “a changin’”. In this course, designed specifically for young, inquiring minds who have not become rigid and set in their ways, we will explore MANY new and exciting means of accomplishing those everyday tasks. Students will need on a daily basis to arrive to class with a pencil, a journal, and an inquiring mind. All additional materials will be provided on an as-needed basis.

## **Drumming: 6<sup>th</sup>**

This course is designed to address the creative and percussive needs of those students not necessarily involved in instrumental music. It provides an opportunity for group interaction, a large musical ensemble experience, and an historical/theoretical perspective of the percussive arts. Students will gain experience in recognizing the different percussion instruments through performance and construction. This course addresses the theoretical and technical musical concepts appropriate for classroom National Arts Educational Standards for grades 6-8.

## **Wind Band: 7<sup>th</sup>-8<sup>th</sup>**

This ensemble is for the intermediate to advanced Middle School instrumentalist. Students will sight-read and perform music at the MSHSL levels of II and above, while addressing the theoretical and technical musical concepts appropriate with the National Performing Arts Educational Standards for grades 6-8. These standards address issues such as solo/small ensemble/large ensemble rehearsal and performance, theory, terminology, and composition.

## **Wind Ensemble: 9<sup>th</sup>-12<sup>th</sup>**

This ensemble is for advanced instrumentalists. Students will sight-read and perform music at the MSHSL levels of Class II and above, while addressing the theoretical and technical musical concepts appropriate with the National Performing Arts Educational Standards for grades 9-12. These standards address issues such as solo/small ensemble/large ensemble rehearsal and performance, theory, terminology, and composition.

## **Wind Ensemble Online: 9<sup>th</sup>-12<sup>th</sup>**

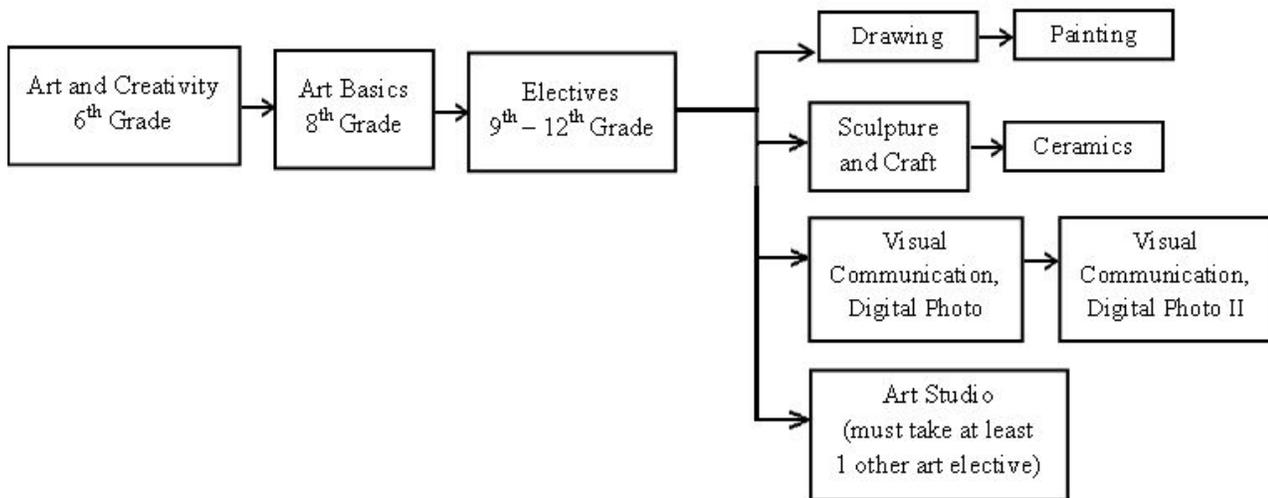
This is an online course specifically for those instrumentalists who cannot fit the curricular ensemble rehearsal into their daily schedule. Through the use of the online subscription rehearsal program, SmartMusic, and online class assignments, instrumentalists will cover the same material as the curricular course (see Wind Ensemble).

## Visual Arts

The visual arts department begins at the middle school level with an overview of the building blocks of art and design. It introduces the students to a variety of two-and-three-dimensional art media, artists, and techniques. Students will study art in historical contexts to learn more about the impact and role visual arts has played in human achievement. They will learn how art and culture are intertwined, to help them better understand the visual world in which we live. Students will form connections, think creatively, and problem solve while learning new art skills and practicing art techniques.

At the high school level the Art Department offers a variety of focused elective classes. Through these classes students will continue to appreciate multiple artistic styles and to practice solutions to visual problems. They will expand and refine their art skills and knowledge, and they will continue to transform, synthesize, and appraise their own work and the work of their fellow students.

### **Visual Arts Flow-Chart:**



### **Required Courses:**

#### **Art and Creativity: 6<sup>th</sup>**

Art has a language all its own. In this class students will be introduced to the elements of design, which are the building blocks of art. They will learn about these art elements while creating a variety of projects by studying multiple artists and by experimenting with different art media and art styles. Students will learn how to brainstorm to gather ideas and will begin to understand how to use art vocabulary to talk about and make judgments about their own and others' artwork.

## **Art Basics: 8<sup>th</sup>**

Students will continue to explore their own creativity and hone their art skills using multiple art materials. By studying famous artists and artwork, students will explore and create with a variety of media and techniques. Students will continue to develop their artistic sense and craftsmanship skills while learning how to communicate ideas visually.

## **Visual Arts Elective Courses:**

### **Art and Technology: 7<sup>th</sup> – 8<sup>th</sup>**

In this class students will be combining traditional art materials with digital art mediums. The focus may include Photoshop and digital imaging techniques, creating videos with green screen and stop motion elements, and visual presentation applications. Students will gain experience with a mix of old and new art media and materials.

### **Drawing: 9<sup>th</sup>-12<sup>th</sup>**

Students will learn the basics of observational drawing. They will begin to understand and practice how to transfer what they see in the three-dimensional world onto a two-dimensional surface. They will learn to draw what they see not what they “think” they see. Light and value are important to this process. The work of famous artists will be analyzed and studied to help students understand techniques and develop their drawing and painting skills. They will explore different mediums (pencil, charcoal, pastel, ink) and different techniques (hatching, stippling, gesture) to create original works of art.

**Fee:** There is a \$10.00 lab fee for this course.

### **Painting: 9<sup>th</sup>-12<sup>th</sup>**

This course will focus on color theory and composition. Students will learn the various techniques associated with watercolor and acrylic painting as well as mixed media art. The work of famous artists will be studied and analyzed to help students learn from the masters. Here they will be inspired to hone their skills and develop their own style and voice.

**Prerequisites:** There is a prerequisite of Drawing or teacher approval for this course.

**Fee:** There is a \$20.00 lab fee for this course.

### **Digital Photography and Visual Communication I: 9<sup>th</sup>-12<sup>th</sup>**

This course will begin to teach students how to create effective visual images with print, computer, and video. Students will learn the basics of good design and put it into practice in a variety of ways. We will look at advertising, movies, graphic design, and photography to understand how information can be best communicated to an audience. They will use Photoshop to learn basic digital imaging while also learning to enhance some of their photographic work.

**Fee:** There is a \$10.00 lab fee for this course.

## **Digital Photography and Visual Communication II: 9<sup>th</sup>-12<sup>th</sup>**

This course is a continuation of Digital Photography and Visual Communication I. Students will continue to work with digital and design media, expanding on previously learned skills.

**Prerequisites:** There is a prerequisite Digital Photography and Communication I or instructor approval for this course.

**Fee:** There is a \$20.00 lab fee for this course.

## **Sculpture and Craft: 9<sup>th</sup>-12<sup>th</sup>**

Students will get the opportunity to explore three-dimensional media such as clay, paper mache, cardboard, wood, fiber, and found objects. This class will give students an introduction to the history of craft and functional art. Projects could include hand-built and wheel thrown pottery, weaving, paper mache, jewelry, furniture, and whatever other everyday, thrown away or functional pieces we can find to beautify.

**Fee:** There is a lab fee of \$20.00 for this course.

## **Ceramics: 9<sup>th</sup>-12<sup>th</sup>**

This class will focus entirely on ceramics (clay). Students will learn advanced hand-building, wheel-throwing, sculpture, and decorating techniques. They will also learn about the history of ceramics and clay sculpture of different art styles and from various cultures.

**Prerequisites:** There is a prerequisite of Sculpture and Craft or instructor approval for this course.

**Fee:** There is a \$20.00 lab fee for this course.

## **AP Studio Art: 10<sup>th</sup>-12<sup>th</sup>**

The course promotes a sustained investigation of all three aspects of portfolio development... quality, concentration, and breadth... The course enables students to develop a body of work investigating a strong underlying visual idea in drawing, 2-D design, or 3-D design that grows out of a coherent plan of action or investigation (i.e., a “concentration”). The course enables students to develop mastery (i.e., “quality”) in concept, and composition, and teaches students a variety of concepts and approaches in drawing, 2-D design, or 3-D design so that students are able to demonstrate a range of abilities and versatility with technique, problem solving, and ideation (i.e., “breadth”). Such conceptual variety can be demonstrated through either the use of one or the use of several media. The course emphasizes art making as an ongoing process that involves the student in informed and critical decision making. The course includes group and individual student critiques and instructional conversations with the teacher, enabling students to learn to analyze and discuss their own artworks and those of their peers. The course teaches students to understand artistic integrity as well as what constitutes plagiarism. If students produce work that makes use of photographs, published images, and/or other artists’ works, the course teaches them how to develop their own work so that it moves beyond duplication.

Students interested in taking AP Studio Art need ONE of the following:

1. Student has already taken at least two courses in an art area (for example: Drawing and Painting or Sculpture and Ceramics)
2. Student has received admittance approval from the teacher due to an already extensive knowledge of a body of work.

## Mathematics Program

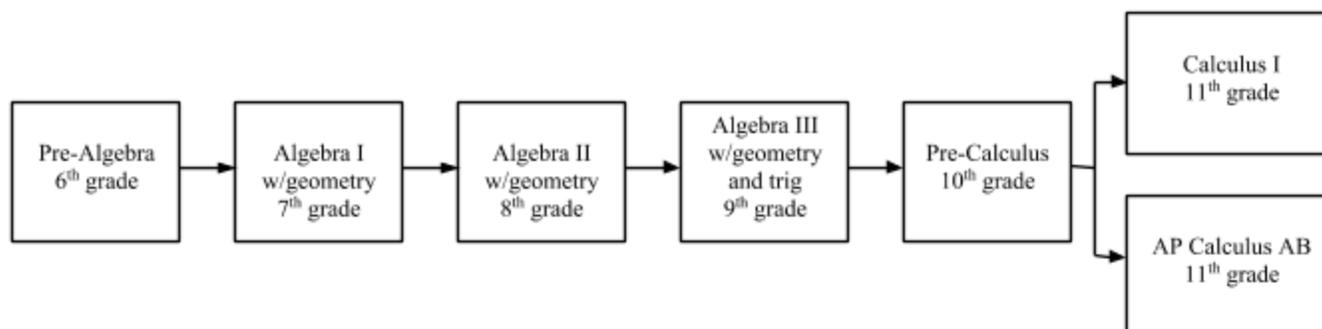
The math program at the Math and Science Academy consists of a comprehensive curriculum that allows students to advance at their own pace, provided that they can demonstrate mastery of the content material. The typical sixth grade student will start in Pre-Algebra. After students have reached a level of understanding of basic mathematics, they will begin Algebra I with Geometry. After completing Algebra I with Geometry, Algebra II with Geometry, Algebra III with Geometry and Trigonometry, PreCalculus, and Calculus I, students will have learned all of the mathematics necessary to succeed in a traditional college level Calculus I course. In order to graduate from MSA, students must successfully complete all courses in the math sequence through Calculus I.

MSA students in Pre-Algebra through Algebra II classes gain math knowledge through the presentation of challenges. Students work on the challenges individually and in small groups then present and discuss their findings. At the end of each unit, students organize and assemble their work into portfolios, rather than using a traditional textbook. Algebra III, Pre-Calculus, and Calculus I students use a more traditional math textbook and class format in order to prepare them for college math classes. Student learning is assessed as students present and discuss their work in class each day. Formal assessment occurs through homework checks, quizzes, tests, and the evaluation of the students' portfolios.

MSA recognizes the fact that our math curriculum is more difficult than that of a typical high school, and that students will progress through this sequence at different speeds. Students may take classes more than once in order to master the content material. Whenever a student chooses to repeat a course at MSA, only the highest grade is recorded on the student's transcript.

The standard required math course sequence appears in the chart below. Students who are following the standard course sequence will be allowed to continue that pace as long as they earn a final year course grade of C- or higher. Students who are progressing through the course sequence at an accelerated pace will be allowed to continue that pace as long as they earn a final year course grade of B- or higher. Students who are progressing through the course sequence at a slower pace must earn a final year course grade of D- or higher to move on to the next course.

Students who are unable to achieve the required minimum grade at the end of the year must repeat the class the following school year.



**Possible Electives:** Geometry, AP Statistics, AP Calculus I AB, AP Calculus II BC, Personal Finance, Computer Science and Literacy, HTML Website Design

## **Required Courses:**

### **6th Grade Math**

This course is designed for students who come to MSA with weaker basic math skills and are not yet ready for Pre-Algebra. The course will cover the same topics as our Pre-Algebra course, but with more emphasis (and practice) on basic skills. Students will be tested at the end of the course to see if they are ready to begin the Algebra I course. Families may want to consider tutoring for their students to help them get ready for Algebra I. 6th Grade Math uses materials from many sources, including the Connected Mathematics Project, Addison-Wesley Secondary Math's Focus on Algebra and Addison-Wesley Secondary Math's Focus on Geometry. Students will also be involved in many activities collected from a variety of sources. Students will be given an MSA math textbook to use as a resource. Topics include: measuring and perimeter, surface area, 3 dimensional objects, large numbers and scientific notation, factors and multiples, probability, more probability, squares and roots, angles and shapes, ratios and variables.

### **Pre-Algebra**

This course is designed to provide students with an understanding of basic mathematics, and to gain the thinking and arithmetic skills necessary to succeed in Algebra I. Pre-Algebra uses materials from many sources, including the Connected Mathematics Project, Addison-Wesley Secondary Math's Focus on Algebra and Addison-Wesley Secondary Math's Focus on Geometry. Students will also be involved in many activities collected from a variety of sources. Students will be given an MSA math textbook to use as a resource.

**Topics include:** measuring and perimeter, surface area, 3 dimensional objects, large numbers and scientific notation, factors and multiples, probability, more probability, squares and roots, angles and shapes, ratios and variables.

### **Algebra I with Geometry**

This course is designed to study the relationships between the graphs, tables, and rules of linear functions. Algebra I uses materials from many sources, including the *Connected Mathematics Project*, Addison-Wesley Secondary Math's (AWSM) *Focus on Algebra*, and AWSM's *Focus on Advanced Algebra*.

**Topics include:** linear functions, tables, graphs, symbolic rules, symbolic manipulation, ratios and proportions, inverse linear functions, linear systems, probability and statistics, families of functions.

### **Algebra II with Geometry**

This course is designed to study the relationships between the graphs, tables and rules of many complex functions. Algebra II uses materials from many sources, including Addison-Wesley Secondary Math's Focus on Advanced Algebra and Functions Modeling Change by Debra Hughes-Hallett.

**Topics include:** linear systems, quadratic functions, factoring, completing the square, radicals and the quadratic formula, inverses and exponents, geometry, polynomials, absolute value and inequalities, rational expressions.

## **Algebra III with Geometry and Trigonometry**

This course is designed to start where Algebra II ends and continue the study of the relationships between the graphs, tables and rules of even more complex functions. Designed to prepare students for PreCalculus and Calculus, this class will involve a lot of practice in algebraic manipulation with the goal that many operations become almost second nature. Algebra III primarily uses Algebra and Trigonometry for College Readiness by Lial and Hornsby.

**Topics include:** exponents, polynomials, polynomial functions, factoring, rational expressions, rational functions, roots, radicals, root functions, conic sections, nonlinear systems, trigonometric functions, acute angles, right triangles, right triangle trigonometry, geometry, probability and statistics.

## **Pre-Calculus**

This course is designed to prepare students for Calculus. Students will learn that functions can be grouped into families and that functions can be used as models for real-world behavior. PreCalculus primarily uses Functions Modeling Change by Debra Hughes-Hallett.

**Topics include:** linear functions, functions, quadratic functions, exponential functions, logarithmic functions, transformations of functions, trigonometry in circles and triangles, trigonometric functions, trigonometric identities and applications, compositions and inverses and combinations of functions, vectors and matrices, sequences, and series.

## **Calculus I**

This course is designed to introduce students to the study of Calculus so that they can succeed in a traditional college level Calculus course. Calculus primarily uses Calculus, Single Variable by Debra Hughes-Hallett.

**Topics include:** functions, derivatives, differentiation, definite integrals, integration, indefinite integrals, using derivatives and definite integrals.

## **Math Elective Courses:**

### **Geometry: can be taken after Algebra II**

This course is designed to introduce students to classical Euclidean geometry and conic sections and to develop formal and informal reasoning. Geometry uses materials from many sources, including Addison-Wesley Secondary Math's *Geometry*, as well as some unpublished material.

**Topics include:** logic, inductive and deductive reasoning, congruence, polygons, 3D objects, symmetry, scaling, Pythagorean Theorem, triangle proofs, constructions, conic sections.

### **AP Statistics: can be taken after Pre-Calculus (not offered every year)**

The purpose of the AP course in Statistics is to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. The course draws connections between all aspects of the statistical process, including design, analysis, and conclusions. Additionally, using the vocabulary of statistics this course will teach students how to communicate statistical methods, results, and interpretations.

Students will learn how to use graphing calculators and read computer output in an effort to enhance the development of statistical understanding. AP Statistics primarily uses Practice of Statistics by Daniel Yates. **Topics Include:** exploring data, describing patterns and departures from patterns, sampling and experimentation, planning and conducting a study, anticipating patterns, exploring random phenomena using probability and simulation, statistical inference, estimating population parameters and testing hypotheses. For more information on this course go to:

<http://media.collegeboard.com/digitalServices/pdf/ap/ap-statistics-course-description.pdf>

### **AP Calculus I AB: can be taken instead of Calculus I**

This course is designed to introduce students to the study of Calculus so that they can succeed in a traditional college level Calculus course. AP Calculus I primarily uses Calculus, Single Variable by Debra Hughes-Hallett. The AP Calculus AB test may be taken in May.

**Topics include:** functions, derivatives, differentiation, definite integrals, integration, indefinite integrals, using derivatives and definite integrals.

For more information on this course go to:

<http://apcentral.collegeboard.com/apc/public/repository/apcalculuscoursedescription.pdf>

### **AP Calculus II BC: can be taken after AP Calculus I AB**

This course is designed to introduce students to the study of Calculus so that they can succeed in a traditional college level Calculus course. AP Calculus II primarily uses Calculus, Single Variable by Debra Hughes-Hallett. The AP Calculus BC test may be taken in May.

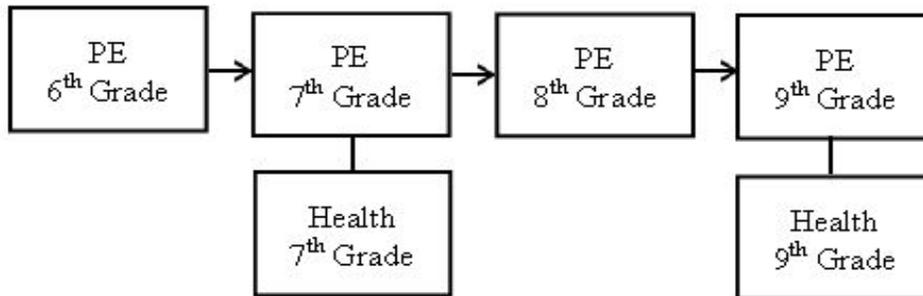
**Topics include:** all of the topics in AP Calculus AB plus Euler's Method, L'Hospital's Rule, derivatives of polar, parametric and vector functions, applications of integrals, integration by parts, substitution, improper integrals, logistic differential equations and using them in modeling, polynomial approximation and series, including Taylor and Maclaurin Series.

For more information on this course go to:

<http://apcentral.collegeboard.com/apc/public/repository/apcalculuscoursedescription.pdf>

## Health/Physical Education Program

The mission of this program is to inspire youth to become responsible for their overall wellness in hopes that they will choose healthy lifestyle enhancing behaviors both now and in the future and to motivate the students to understand and incorporate physical activity in their everyday lives. The curriculum is designed to help students understand that the decisions they make can affect the quality and longevity of their lives.



### Required Courses:

#### **Health 7: 7<sup>th</sup>**

The curriculum is designed to help students understand that the decisions they make can affect the quality and quantity of their lives both now and in the future. The health lessons and activities focus on the National Health Standards, and include: personal wellness, mental and emotional wellness, nutrition, decision making and conflict resolution, alcohol and other drug abuse, healthy relationships, human sexuality, physical activity, and communicable and non-communicable diseases.

#### **Health 9: 9<sup>th</sup>**

Upon completion of this class, the students will be able to identify and explain various systems in the body and how they work together. The students will also be able to explain how stress, sexually transmitted diseases, mental disorders, and puberty affect the body's natural functioning. The topics covered include: personal wellness, goal setting, mental and emotional wellness, nutrition, alcohol and other drug abuse, body systems, human sexuality, and early childhood development.

#### **Physical Education: 6<sup>th</sup> – 9<sup>th</sup>**

Physical education focuses on the National Standards for Physical Education. The overall goals for students include: being physically active, having a positive attitude towards the activity being presented, and attending class in appropriate physical education attire. A wide variety of activities and skills are covered each week with a short introductory game, fitness activity, and a lesson focus. Students are exposed to numerous sports and activities that include team and lifetime sports, adventure activities, and team building strategies.

## Science Program

The purpose of the Math and Science Academy's Science Program is to broaden one's understanding of scientific concepts and develop the skills of inquiry. Students will learn subject matter disciplines in the context of inquiry, technology, science in personal and social perspectives, and the history and nature of science while integrating all aspects of scientific concepts. Rather than study a broad range of general topics, students will study a few fundamental scientific concepts that will best prepare them for continued learning.

All elements of the program are consistent with the National Science Education Standards and Benchmarks for Scientific Literacy. All content has been developed within and across grade levels to meet state-mandated goals as measured by the Minnesota Comprehensive Assessments (MCA's) Middle School and High School Science benchmarks. Subject matter is made meaningful as students practice activities that are relevant to their own lives and as they acquire information through multiple sources – educators, practice and experience, and communication with other students. Students will practice inquiring by using multiple processing skills – manipulation, cognitive, procedural – and by performing relevant short-term and extended activities that investigate and analyze science questions.

### Required Science Courses

Life Science (6<sup>th</sup> Grade)

Earth Science (7<sup>th</sup> Grade)

Physical Science (8<sup>th</sup> Grade)

Biology or AP Biology (9<sup>th</sup> grade)

Chemistry or AP Chemistry (10<sup>th</sup>-12<sup>th</sup> Grade)

General Physics (11<sup>th</sup>-12<sup>th</sup> Grade) or

AP physics (11<sup>th</sup>-12<sup>th</sup> Grade)



## Required Courses:

### **Course Life Science: 6<sup>th</sup>**

Students will learn subject matter disciplines in the context of inquiry, technology, science in personal and social perspectives, and history and nature of science while integrating all aspects of biological concepts consistent with State Standards, the National Science Education Standards and Benchmarks for Scientific

Literacy. Rather than study a broad range of general biological topics, students will study a few fundamental scientific concepts that will best prepare them for success in AP Biology/Biological Sciences. Students will practice inquiry by using multiple processing skills – manipulation, cognitive, procedural, laboratory descriptions investigations, and by performing relevant short-term and extended activities that investigate and analyze science questions.

### **Earth Science: 7<sup>th</sup>**

Students will investigate Earth science concepts including the nature and practice of science, Earth in space, geology, meteorology, and human interactions with Earth systems. Students will demonstrate the application of critical thinking skills to science problems and develop an awareness of basic underlying concepts that relate to or explain the natural world (systems, cycles, order, change, energy and matter, cause and effect). The course includes in-class and group activities, online learning, labs and inquiry, research projects, and other assignments.

### **Physical Science: 8<sup>th</sup>**

Physical Science is foundational to high school chemistry and physics. This class presents a wide range of topics including scientific methods, measurements, matter, chemistry, chemical systems, motion and forces, simple machines, sound, light, and electricity. It can be mathematically intense, and the students will develop a strong conceptual understanding of Physical Science by the end of the year. The first semester is an introduction to chemistry, and the second semester will concentrate on physics.

### **Biology: 9<sup>th</sup>**

Students enrolled in this course will learn about the living world at all levels of organization and the processes involved at those levels. To do this, students will work with concepts, theories, and principles of the living environment. Topics will include cells and cellular processes, genetics, evolution, diversity of life, body systems, and ecology. Laboratory activities and field investigations will be used to supplement student understanding of each of these topics. In addition to these topics, students will also learn about historical biology background, potential careers in the field of biology, and evaluate current biology-related issues.

### **General Chemistry: 10<sup>th</sup>**

Chemistry is a course in which the student will investigate chemical and physical behavior of matter using the scientific method. In the laboratory the student will learn to make careful observation, seek out regularities, and attempt to provide explanations for observed behavior. The student is introduced to a fundamental understanding of chemical reactions and chemical bonding through a detailed analysis of the structure of the atom. These experiences are centered around laboratory activities with much emphasis being placed on process, observation, and evaluation of observation.

### **General Physics: 11<sup>th</sup>**

This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, energy, optics, electricity, magnetism, and the structure of matter and the universe. Upon completion, students should be able to describe examples and applications of the principles studied. Laboratory experiments and computer-based exercises enhance and

consolidate the understanding of basic physical principles and applications. Prior to taking this class students should have 1 year of algebra and a basic understanding of trigonometry.

## **Science Elective Courses:**

### **Engineering: 7<sup>th</sup>- 8<sup>th</sup>**

Students will investigate science and engineering concepts through science, technology, engineering and math (STEM) activities. Some projects will incorporate computer design and the use of fabrication equipment to create a variety of products. Students will participate in guided investigations and open-ended problem solving activities, learn how to document their work, and communicate their solutions to others. A lab fee of about \$25 will cover fabrication materials needed for the course.

### **Anatomy & Physiology: 11<sup>th</sup>-12<sup>th</sup>**

This course will focus on the anatomy and physiology of the human body. Topics will include each of the body systems and will focus on the relationship between the physiological and anatomical features of each. Laboratory work will include dissection of preserved specimens, physiological experiments, and computer simulations to encourage understanding of material.

**Prerequisites:** Biology or AP Biology must be taken prior to enrolling in this course.

### **Science of Flight: 9<sup>th</sup> -12<sup>th</sup>**

This one semester class will explore the science of flight as well as the industry that surrounds this field. Students will build hot air balloons, gliders, rockets and powered airplanes and will test their designs against others in class. Additional topics to be covered include maps, meteorology, flight simulation and other industry tools of the aviation field. There will be an approximate \$15 fee to cover the cost of materials each year for the Flight Course. The final fee will be based on the number of students signing up for the course. Each student will be able to keep both the power airplane and the rocket they build. If there is a financial hardship, the school can provide a scholarship.

### **A Taste of Science: 9<sup>th</sup> -12<sup>th</sup>**

Have you ever wondered what makes bread rise? Why is red velvet cake red? Now is your chance to find out! In this course, we will explore the science behind cooking and food ingredients. You will explore the budding field of "molecular gastronomy" and become familiar with some techniques used in this field. For example, we will bake red velvet cake and investigate the secret behind the red color. You will also turn yogurt into "ravioli", create rock candy, make ice cream and marshmallows from scratch! In addition to these, you will have the opportunity to delve into the science of climate change and become a detective in the world of forensic science with opportunities to investigate blood-spatter patterns and bullet trajectories!

### **AP Chemistry: 10<sup>th</sup> – 12<sup>th</sup>**

This course can be taken in place of Chemistry for the graduation requirement or as an elective for students in 10th-12th grade. The AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first college year, and uses a college level text signed out to 9<sup>th</sup> grade students after they have completed Biology at the end of the school year. This course will prepare students for

success on the 2015 AP Chemistry Test. Students will complete a self-paced summer preparation program consisting of videos and online assignments covering chapters 1 – 3 and most of chapter 4. Students will be required to meet from 8 a.m. to 2 p.m. on August 4, 2014, and August 18, 2014. The morning sessions will be for instructor assistance and the afternoon sessions will be labs. Students will test on these chapters the second week in September. Students will complete many labs recommended by the College Board. (Note-It is highly recommended that students take Chemistry before this course. They will be more successful and this will eliminate the need for summer school.)

[http://media.collegeboard.com/digitalServices/pdf/ap/IN120085263\\_ChemistryCED\\_Effective\\_Fall\\_2013\\_1k\\_d.pdf](http://media.collegeboard.com/digitalServices/pdf/ap/IN120085263_ChemistryCED_Effective_Fall_2013_1k_d.pdf)

**Prerequisites:** Current 9th going into 10th: An A- or higher in AP Biology (must have taken); for student in 11th-12th grade: An A- or higher in Chemistry (recommended) will be summer homework.

### **AP Biology: 9<sup>th</sup> - 12<sup>th</sup>**

This course can be taken in place of Biology for the graduation requirement or as an elective for students in 10th-12th grade. Students have the option of taking an AP exam in May for college credit. This course is meant to be the equivalent of a two-semester college introductory biology course that covers topics of the living world at all levels of organization. The goal is to provide the knowledge and analytical skills necessary to understand the field of biology.

<https://secure-media.collegeboard.org/ap-student/course/ap-biology-2012-course-exam-description.pdf>

**Prerequisites:** Current 8th going into 9th grade: An A- or higher in Physical Science; For students taking the course as an elective (10th-12th grade): B+ or higher in Biology (recommended)

### **AP Physics: 9<sup>th</sup> - 12<sup>th</sup>**

AP Physics 1 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of Physics through inquiry-based investigations as they explore topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. The course is based on six Big Ideas, which encompass core scientific principles, theories, and processes that cut across traditional boundaries and provide a broad way of thinking about the physical world.

<https://secure-media.collegeboard.org/digitalServices/pdf/ap/ap-course-overviews/ap-physics-1-course-overview.pdf>

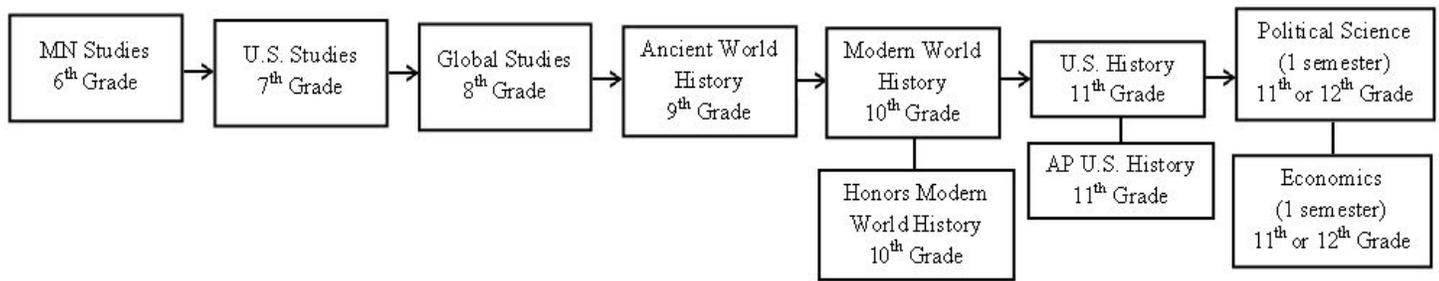
**Prerequisites:** 11th and 12th grade- Math: Must have completed Algebra III with a B+ or above and will be in a Pre-Calculus or higher class while taking AP Physics. Science: Completed Chemistry (AP or non-AP with a B+ or higher. Summer homework: Science skills review packet. Exceptions made at teacher's discretion.

## Social Studies Program

The study of History (Minnesota, U.S., and World) helps students to see how people in other times and places have grappled with the fundamental questions of truth, justice, and personal responsibility, to understand that ideas have real consequences, and to realize that events are shaped both by ideas and the actions of individuals. The global connections in areas such as commerce, politics, migration, and communications, make an understanding of the history of the world's many cultures especially important in fostering the respect and understanding required in a connected and interdependent world.

The geographically literate person knows where important things are, why they are located in those places, and the significance of the location patterns of the world, as well as comprehending the nature and significance of multiple connections between people and places around the world. Included in Social Studies is the study of economics, which enables students to make reasoned judgments about both personal economic questions and broader questions of economic policy in a complex and changing world. The aim of Social Studies civic education is to ensure the participation of informed and responsible citizens who are skilled in the arts of deliberation and effective action.

### Social Studies Curriculum Flow Chart 2013-1014



### Required Courses:

#### **Minnesota Studies: 6<sup>th</sup>**

Minnesota Studies includes knowledge, comprehension, and analysis of Minnesota history from tribal settlement to modern-day. Some topics covered will include the daily life of native peoples, early settlement and statehood, Minnesota's role in various wars (Civil War, Dakota Conflict, WWI, WWII, etc.), industrialization, state and local government, and immigration (among other topics). This is a blended course in which the first semester focuses primarily on Minnesota's development, while the second semester brings Minnesota into the larger history of the United States.

## **US Studies: 7<sup>th</sup>**

US Studies focuses on history as the leading discipline, but also includes citizenship, economics, geography, and government. Students will study the founding documents and explain the impact of various policies on how people lived, worked, and functioned in society. Some of the themes discussed include the Birthplace of Democracy, the Civil War, Reconstruction, WWII, and the beginning of the Cold War. Students will also have the opportunity to compete in the National History Day Competition, an inter-disciplinary research program which broadens students' historical experiences by completing a paper, an exhibit, a documentary, a play, or a website.

## **Global Studies: 8<sup>th</sup>**

This course takes a regional approach to understanding the world and how people interact with their environments. Students will analyze important trends in the modern world, participate in civic discussion, conduct historical inquiry, and study events over the last half century that have shaped the contemporary world. The units that students will study include: Geographic Skills, Overview of the World/Globalization, Australia/Oceania, East and Southeast Asia, Southwest and Central Asia, Africa, Europe/Russia, Latin America, and the United States/Canada. A research project is required as well as various smaller projects.

## **Ancient World History: 9<sup>th</sup>**

Ancient World History includes knowledge, comprehension, and analysis of World History from Ancient Rome through the Age of Revolution and Enlightenment. We will examine Rome and the Rise of Christianity, The World of Islam (up to 1800), early African peoples, civilizations of the Americas, the Asian world (up to 1800), Europe in the Middle Ages, Renaissance and Reformation, the Age of Exploration, and European Revolution and Enlightenment. We will examine history through the people, events, and ideas that made these periods and countries important, as well as trying to tie countries and people together.

## **Modern World History: 10<sup>th</sup>**

Modern World History will cover the period from the French Revolution to the late 20th Century. Students will not only examine key historical events, but hone their analytical and writing skills as they prepare for college. Assignments include research papers, essay exams, and document based questions and analysis. Students will be read excerpts from a variety of sources. Key readings will come from primary source documents. These are integral to understanding events in world history. Students will have the opportunity read a literature selection to enhance understanding of a key event or era in modern history and the repercussions that resulted from that extraordinary event. Options could include: *Animal Farm*, *All Quiet on the Western Front*, *When My Name was Keoko*, or *Persepolis*.

## **US History: 11<sup>th</sup>**

This course provides a one-year survey of American history beginning with the migration of native peoples and civilizations in North America prior to European contact to the Colonial Period, the American Revolution, the Civil War, and other defining events for the United States, including analyses of various civil rights movements and the Vietnam War era. Using the textbook, primary documents, and current events, students will learn about the various political, social, religious, and economic developments that have shaped and continue to shape the United States. Essay writing and critical thinking are emphasized as integral ways of understanding how the past relates to the present and future. A major research paper is required as well as various smaller projects.

## **Political Science: 11-12<sup>th</sup>**

This is an introductory course which will provide students with the knowledge and skills needed for informed, responsible, and active participation in their communities. We will be framing the class with the Constitution – using it to explore such topics as rights/responsibilities of citizenship, political parties, the three branches of government, and domestic and foreign policy.

## **Economics: 11-12<sup>th</sup>**

Economics is the study of how people coordinate their wants and needs, given scarce resources and the decision-making mechanisms, social customs, and political realities of their societies. We will examine how decisions made by consumers, workers, investors, managers, and government officials interact to determine the allocation of scarce resources. We will begin with a focus on microeconomics and gradually expand to macroeconomic topics such as GDP, unemployment, inflation, and public policy. This course will end with a unit on personal finance.

## **Social Studies Elective Courses**

### **African American History: 11<sup>th</sup> – 12<sup>th</sup>**

This course is designed to help students develop an understanding of the causes, character, and consequences of the African American experience and its influence of the world, the United States, and the African American community. Students will begin with a historical, geographical, social, political, economic, and cultural understanding of the African continent before transitioning to the slave trade and the experience of forced migration before finishing with the study of the African and African American experiences here in the United States.

### **AP Psychology: 11-12<sup>th</sup>**

The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological

facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice.

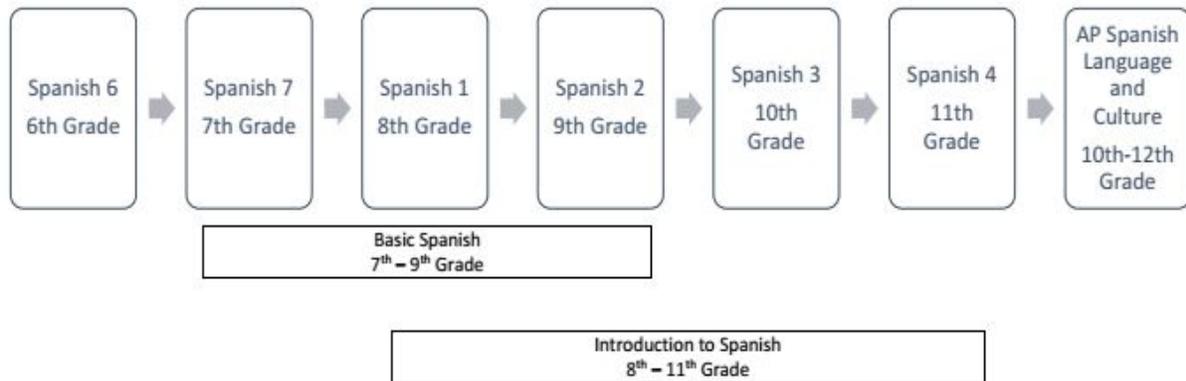
For more information on this course go to:

<http://apcentral.collegeboard.com/apc/public/repository/ap-psychology-course-description.pdf>

## Spanish Program

Students at MSA are required to take Spanish from sixth grade through eleventh grade. The purpose of this six year program is to form a strong basis of the Spanish language. The learning includes grammar, vocabulary, writing, literature, conversation, and culture. Students will leave MSA with a strong background in Spanish to help them in their college studies. Student who would like to pursue college Spanish placement testing will be well prepared.

Students who are new to MSA and have not taken any Spanish courses, will be scheduled into Beginning Spanish. Also, students who need to go at a slower pace will be scheduled into Basic Spanish. As the student(s) progress, he/ she may be moved to another level of Spanish.



### **Spanish 6: 6<sup>th</sup>**

This course is the first year of Spanish. It will include grammar, vocabulary, writing, listening, and cultural skills. Students will learn the basics of Spanish such as the alphabet, greetings, conjugation of verbs in the present tense as well as likes, dislikes, descriptive, school, family, clothing and food vocabulary. Some culture from Mexico, Puerto Rico and Spain will be introduced.

### **Spanish 7: 7<sup>th</sup>**

This course is the second year of Spanish. It will include grammar, vocabulary, writing, listening, and cultural skills. Students will learn basic communication identifying rooms and items in a house, activities to maintain one's health, body parts, technology, free time, daily routine and travel. Culture from Ecuador, Dominican Republic, Argentina and Costa Rica will be introduced.

### **Basic Spanish: 7<sup>th</sup>-9<sup>th</sup>**

This course is a review of the first 2 years of Spanish. It will include grammar, vocabulary, writing, listening, and cultural skills. The purpose of this course is to help students progress at a pace that is more feasible for them to learn the Spanish language.

## **Introduction to Spanish: 8<sup>th</sup>-11<sup>th</sup>**

This course is for students new to MSA in grades 8-11 who have little or no experience learning Spanish. It will focus on basic concepts taught in the first two years of Spanish at MSA. Placement for the following school year will be based on the level of learning and ability of the student in this Spanish course.

## **Spanish I: 8<sup>th</sup>**

This course is the third year of Spanish. It will include grammar, vocabulary, writing, listening, and cultural skills. Students will learn to communicate about travel, sports, daily routines, shopping, myths and legend, and childhood experiences. The present, past, present progressive and imperfect tenses will be covered. Traditions and folklore from Mexico, Central America, South America and Puerto Rico will be presented.

## **Spanish II: 9<sup>th</sup>**

This course is the fourth year of Spanish. It will include grammar, vocabulary, writing, listening, and cultural skills. Students will learn to communicate about food/cooking, making movies, technology, news, problem-solving, family relationships and the environment. The present subjunctive, imperative, comparatives and superlative, por and para, and impersonal expressions will be taught in this course. Traditions and folklore from Central America, the Dominican Republic, Spain and the United States will be presented.

## **Spanish III: 10<sup>th</sup>**

This course is the fifth year of Spanish. It emphasizes the use of the language for active communication. Course content will reflect intellectual interests shared by the students and teacher (the arts, current events, literature, sports, etc.). It will include grammar, vocabulary, writing, listening, and cultural skills. The subjunctive mood will be continued in this course.

## **Spanish IV: 11<sup>th</sup>**

This is the sixth year of Spanish. Students will continue to advance their reading, writing, speaking and listening skills in the target language as well as their knowledge of grammar and vocabulary. Students will develop their understanding of the language and culture through the analysis of Hispanic literature.

## **Spanish Elective Courses:**

### **AP Spanish Language and Culture: 11<sup>th</sup> -12<sup>th</sup>**

This is the seventh year of Spanish at MSA. It is an advanced placement course offered to students who have completed Spanish IV with a B+ or higher and teacher approval. The course is rigorous and covers grammar, reading, listening, interpersonal speaking and writing and presentational speaking and writing all with cultural components. The course prepares students for the Collegeboard AP Exam.

<https://secure-media.collegeboard.org/digitalServices/pdf/ap/ap-spanish-language-and-culture-course-and-exam-description.pdf>