

# Missouri Military Academy



## Program of Studies 2023-2024

Missouri Military Academy  
Phone: 573.581.1776 Fax: 573.581.5095 [www.MissouriMilitaryAcademy.org](http://www.MissouriMilitaryAcademy.org)  
204 North Grand Street, Mexico, Missouri USA 65265

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Dear Missouri Military Academy cadets, parents, and guardians:

Focused on fulfilling the Academy's mission and supporting our strategic plan, the MMA faculty team is dedicated to empowering our cadets to reach their full potential for academic excellence. To provide a clear guide to achieve goals, every cadet has an individual academic and career plan -- a Program of Study -- developed by MMA to outline his path to college and career readiness. We have provided this document as a resource to help you understand the academic options available and the path ahead.

Think of the Program of Studies as an atlas containing the maps to chart a course through graduation requirements and particular areas of interest that will prepare you for your future beyond MMA. The table of contents will give you a sense of the maps available to you, including requirements, prerequisites, and explanations of levels, course lists, and course descriptions. Teachers, advisors, college and career guidance counselor, as well as the school guidance counselor will provide additional help charting the course. Please use all available resources to help guide your decisions about classes and levels.

By completing MMA graduation requirements, cadets receive a well- rounded education that prepares them for postsecondary learning, careers, and responsible citizenship. All cadets immerse themselves in foreign languages, fine arts, Army JROTC program, along with three years of Science and Social Studies, as well as four years of Math and English. This is to ensure educational breadth and depth. By following a path beginning with introductory courses and ending with advanced courses, cadets delve more deeply into disciplines of their choosing. In several departments cadets can follow a three- or four-year sequence that allows them to leave Missouri Military Academy with college credit, employable skills, or both.

Please note that course availability from semester to semester may be determined by interest and class size. We do our best to accommodate individual cadet and parent requests. However, some courses described within the Program of Studies may not be offered during the 2022-2023 school year.

The purpose of the academic plan outlined in the Program of Studies is to support cadets in reaching their full potential.

To each of our cadets, we look forward to working with you to plan your educational journey at MMA and helping you take command of your future.

Sincerely,



Mike Harding  
Academic Dean

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## **OUR MISSION**

Missouri Military Academy empowers young men to unlock their potential through a program of academic excellence, character, social development and leadership training within a structured environment.

## **OUR VISION**

Missouri Military Academy develops cadets who:

1. are of sound moral character and have self-discipline enabling them to strive for and achieve their goals.
2. are academically prepared to attend college;
3. are better prepared for life as a result of the academy's mentoring and focus on academic, physical, and social development.

## **STATEMENT OF PURPOSE**

To achieve these results, instruction is purposeful, engaging, relevant, and rigorous. Our aim is to promote a culture of critical thinking, freedom of inquiry, and academic success. In order to do this, we instill structure, accountability, and self-discipline within our cadets so that they learn the importance of self-reliance, and problem-solving for success.

## **ACADEMIC STANDARDS**

### **1. Uses reading comprehension strategies for understanding**

- a. Acquires vocabulary
- b. Understands structures of various text-based materials
- c. Uses reading comprehension strategies for various texts

### **2. Utilizes problem-solving strategies and thinking skills**

- a. Conceptual Understanding – interprets the problem and selects appropriate information to apply a strategy for solutions
- b. Procedural Knowledge – demonstrates appropriate use of concepts.
- c. Uses tables, charts, graphs, models, diagrams, drawings to communicate solutions
- d. Organizes, interprets, analyzes data in all its forms
- e. Uses logical and systematic reasoning
- f. Understands and applies conceptual knowledge
- g. Develops and uses rubrics (performance criteria) for assessing work
- h. Applies writing, listening, visual and speaking skills to communicate ideas
- i. Writes with a clear focus, coherent organization and sufficient detail
- j. Uses knowledge of standard conventions in writing, revising and editing
- k. Revises to improve organization, content, paragraph development, level of detail, style, tone and word choice

### **4. Exhibits understanding and application of various technologies**

- a. Demonstrates knowledge and use of information technologies to acquire, organize, analyze and communicate information
- b. Develops a core set of technical skills
- c. Transfers technological skills to real-world situations and problems

- d. Information Literacy - Accesses information efficiently and effectively and evaluates critically and competently
- e. Exhibits proper use and care of information technology equipment

**5. Works effectively as a member of a team**

- a. Organizes to share and complete a task
- b. Communicates thoughts, feelings and ideas to justify a position
- c. Functions as a leader
- d. Exercises respect for all team members
- e. Demonstrates personal responsibility and integrity

**4x4 block**

Each semester cadets take four to six courses that cover a full year's curriculum. This enables them to earn a full academic credit in one semester. Each class period lasts 85 minutes. Faculty teach three courses each semester, giving them an extended block of time for prep or collaboration each day. A block schedule supports deeper learning by allowing a variety of activities to occur during a single class period such as direct instruction, cadet projects, collaborative work, discussions and assessments.

1. Cadets are able to finish sequential language classes, such as Spanish I and II and two levels of math, such as Algebra I and Geometry, within one academic year. This allows them to complete the core requirements for graduation and provide opportunities to take dual credit courses with William Woods University as juniors and seniors.
2. Cadets can concentrate on only four courses per semester.
3. Cadets can take more than one level of a core course, such as math or English.
4. Longer class periods and fewer classes per day results in less daily homework.
5. Faculty have longer planning periods for lesson preparation, grading, and parental communication.

**AB**

An "A/B" or "alternating-day" block schedule in which cadets take 85 minute classes that meet every other day, in order to

1. Allow our middle school cadets to take Math and English all year. This increases the instructional time for these two core classes, benefits mandated standardized test scores and allows for smaller class sizes for the middle school and more individualized teaching.
2. Provide flexibility for cadets to maximize their schedule opportunities to take a variety of classes, especially fine art classes like Band and Choir.



# 2023-2024 School Profile

**President:** Brigadier General Richard V. Geraci, USA, (Ret)

**Vice President for Institutional Advancement:** Mr. Rob Silbaugh

**Academic Dean:** Mr. Mike Harding

**Commandant:** Colonel R.L. Grabowski, USMC, (Ret)

**Athletic Director:** Mr. Brian Meny

**Director of Enrollment Management:** Lieutenant Colonel Greg Seibert, MMA

**Accredited by the Independent Schools Association of the Central States (ISACS)**

204 North Grand Street

Mexico, MO 65265

[www.MissouriMilitaryAcademy.org](http://www.MissouriMilitaryAcademy.org)

Phone 573-581-1776 Fax 573-581-5095

CEEB 262195

## GENERAL OVERVIEW

Founded in 1889, Missouri Military Academy is a private all-boy college preparatory boarding academy, with a day school option, for grades 7-12 with a post-graduate year option. Located in safe and peaceful rural Missouri, MMA educates young men from around the world who seek college preparatory and career readiness programs using a military educational model employing structure, self-discipline and accountability. Every student is a member of the corps of cadets. Our 360° Education™ focuses on academic excellence, self-confidence, character development, physical development, personal motivation and leadership training to prepare young men to take command of their personal lives and their future.

## FACULTY

Our highly dedicated and qualified faculty are very familiar with boys' academic needs and relational teaching, and they are dedicated to the intellectual, social development and growth of each cadet. They provide one-on-one tutoring, guided study hall and academic advising on a weekly basis.

## CLASS SIZE AND STUDY HALL

The average class has 14 cadets with many classes having less than 10 cadets. Mandatory supervised study halls are held every evening, Monday through Thursday, from 7:00 p.m. to 8:15 p.m. This focused time allows for the development of personal responsibility, strong study skills, individualized attention and positive teacher-cadet relationships.

## CURRICULUM

Our curriculum provides a well-rounded liberal arts education while meeting Missouri state graduation requirements. It promotes critical thinking skills and freedom of inquiry, with particular emphasis placed on speech and writing across the curriculum, STEM and Project Lead the Way, cybersecurity, business, language and fine arts. Diversity, Equity, and Inclusion education and awareness are incorporated into our experiential curriculum through domestic educational tours and the celebration of all cultures and traditions. Juniors and seniors may take college dual-credit, trade and fine arts courses through William Woods University, Hart Career Center, and Presser Performing Arts Center. Qualifying cadets can earn college credits by enrolling in MMA's Triumph Program.

Our curriculum is designed to support our 360° Education™ and provide a challenging academic environment that supports the development of life skills. The presence of our international cadet population provides a global perspective and an enriching educational experience for every cadet.

## PROGRAM OF STUDIES

In order to provide diverse opportunities, our academic program is delivered through a 4x4 block, with AB option schedule that requires cadets to take four to six courses each semester.

## ARMY JROTC

The Academy's Junior Reserve Officer Training Corps (JROTC) program, recognized as an "Honor Unit with Distinction," is an integral part of our curriculum, focusing on leadership and citizenship education with a JROTC Cyber Program elective. The JROTC Leadership, Education and Training (LET) courses are required for all cadets in grades 9 through 12.

## EDUCATIONAL TECHNOLOGY

The Koster Global Media Center supports the use of the latest educational technology. Every cadet is provided a laptop computer to enhance their educational experience and familiarity with software packages and the latest educational resources. Google Classroom is regularly used in all classes.

## EXTRACURRICULAR ACTIVITIES

Varsity sports include football, soccer, cross country, basketball, wrestling, baseball, tennis, swimming and diving, track and field, and golf. Junior varsity and middle school athletics are also offered. Other activities include Boy Scouts of America, nationally recognized rifle and drill teams, Raiders, equestrian, bagpipes, band, choir, and Future Business Leaders of America.

## COMMUNITY SERVICE

Staff, faculty, and cadets are involved in a robust community service program. Middle school cadets are required to earn 8 hours of community service each academic year, and high school cadets are required to earn 16 hours each year. Two cadet community service days are scheduled annually to help cadets reach their service goals, and to instill an ethos of service before self.

## ACADEMIC RECOGNITION

Academic achievement is recognized through the National Honor Society, National STEM Honor Society and MMA's Delta Phi fraternity, which highlights our top academic performers throughout the year.

The Academy's successful Future Business Leaders of America club consistently competes and earns honors in state competitions. Our band has regularly been recognized for its outstanding performance and has earned top honors in the National Military School Band and Choir Festival for multiple years.

## COLLEGE ACCEPTANCE

Year after year, MMA celebrates a college acceptance rate of 100% with our graduates.

## GRADUATION REQUIREMENTS

English.....	4	JROTC/LET.....	up to 4
Mathematics.....	3	Physical Education.....	1
Science.....	3	Practical Arts.....	1
Social Studies.....	3	Electives.....	5-8
Fine Arts.....	1	Health.....	½
Speech.....	1	Personal Finance.....	½
Technology.....	1		

Total: 28 credits

**Providing a 360° Education™**



**GRADING SYSTEM**

<u>Numeric score</u>	<u>Letter Grade</u>
97 - 100	A+
93 - 96	A
90 - 92	A-
87 - 89	B+
83 - 86	B
80 - 82	B-
77 - 79	C+
73 - 76	C
70 - 72	C-
67 - 69	D+
63 - 66	D
60 - 62	D-
Below 60	F

**CLASS RANK**

Senior class ranking is determined by cumulative, weighted GPA.

**GRADE POINTS**

Grade	Dual Credit Courses	Regular and JROTC Courses
A	5	4
B	4	3
C	3	2
D	2	1
F	0	0

**Typical Daily Schedule for Cadets**

Wake up	0600 (6 a.m.)
Physical training (PT) (3 days/week)	0615
Personal hygiene/room inspection	0645
Formation/uniform inspection	0700
Breakfast	0725
Advisory Support Period	0800
Academic Period 1	0825
Academic Period 2	0955
Advisory	1125
Noon mess (lunch)	1210
Academic Period 3	1255
Academic Period 4	1425
Varsity athletics/PT	1600
Evening mess (dinner)	1815
Study hall	1900
Personal time	2015
Lights out/Taps	2200

On Wednesdays, cadets follow a modified schedule with each academic class meeting for 50 minutes in the morning. In the afternoon, cadets have commandant time. This time is typically used for drill and military review practice and any other activities deemed necessary by the commandant.

The evening schedule is the same every Monday through Friday.



**CLASS OF 2023**

*College Acceptances and Post-Graduate Plans*

*The Class of 2023 has been offered \$5,286,940 in college scholarships.*

- University of Notre Dame
- St. Charles Community College
- Bellevue College
- Indiana University Bloomington
- St. Charles Community College
- University of Missouri
- Northwest Missouri State University
- University of Missouri
- Universidad Panamericana
- Missouri University of Science and Technology
- Texas Tech University
- Henderson State University
- Universidad Internacional de la Empresa
- Southern Methodist University
- Kansas State University
- Saint Louis University
- Missouri University of Science and Technology
- University of Texas at Arlington
- Saint Louis University
- Norwich University
- United States Naval Academy
- Houston Christian University
- University of Central Florida
- Westminster College
- Missouri University of Science and Technology
- Norwich University
- University of Nevada, Reno
- Missouri University of Science and Technology
- Western Washington University
- South Texas College
- Pennsylvania State University
- Florida Southwestern State College
- United States Military Academy Prep School
- Ozarks Technical Community College

## MISSOURI MILITARY ACADEMY RECOMMENDED COURSE SEQUENCE

The following course sequence is recommended so as to ensure adequate preparation for graduation and postsecondary studies.

### GRADE 7:

- English 7
- Mathematics 7
- Science 7-8
- Social Studies 7-8

### GRADE 8:

- English 8
- Mathematics 8
- Science 7-8
- Social Studies 7-8

### HIGH SCHOOL

#### Advanced College Pathway

9 <sup>th</sup>	Geometry	English I	World History	Biology I
10 <sup>th</sup>	Algebra II	English II	SS Elective	Chemistry I, Physics I
11 <sup>th</sup>	DC Math	DC English	US History	Biology II, Chemistry II, Physics II
12 <sup>th</sup>	DC Math	DC English	Econ/Gov	DC Science

#### Regular College Pathway

9 <sup>th</sup>	Algebra I	English I	World History	Physical Science
10 <sup>th</sup>	Geometry	English II	SS Elective	Biology I
11 <sup>th</sup>	Algebra II	English III	US History	Chemistry I, Physics I
12 <sup>th</sup>	College Algebra	English IV	Econ/Gov	Biology II, Chemistry II

Cadets on a college pathway should start taking a foreign language by their sophomore year.

#### Career-Focused Pathway

9 <sup>th</sup>	Alg. IA & IB	English I	World History	Physical Science
10 <sup>th</sup>	Functional Geometry	English II		Biology I
11 <sup>th</sup>	Integrated Math	English III	US History	Environmental Science
12 <sup>th</sup>		English IV	Econ/Gov.	

Cadets taking the career-focused pathway are recommended to take classes at Hart Career Center. If following the above schedule, the 11<sup>th</sup> grade year the Hart Career Course would be the only elective. Seniors would enroll at Hart Career Center and take two additional electives.

#### All cadets must meet these core requirements to graduate:

4-English Credits;	3- Math Credits	3-Social Study Credits	3- Science Credits
1-Speech Credit	1-Technology Credit	1-Practical Arts Credit	1-Fine Arts Credit
½-Health Credit	1 – Physical Ed Credit	½ Personal Finance Credit	1-4 JROTC Credits
5-8 Elective Credits	16 Community service hours per year for high school cadets		

These core courses are required: Algebra I (or Alg. IA and IB), Geometry or Functional Geometry, Algebra II or Integrated Math, US History, Economics/Government, English I-IV.

#### Required Electives:

JROTC	Fine Arts (1 credit)	Technology (1 credit)
Health (9 <sup>th</sup> Grade Year)	Practical Arts (1 credit)	Speech (1 credit)
Personal Finance (9 <sup>th</sup> Grade Year)	PE (1 credit)	



Colleges look favorably on additional math, English and science credits. It is recommended that cadets complete all required electives by their sophomore year, including one credit of a fine art and a practical art. This allows cadets more freedom in their junior and senior year to take Triumph (dual credit), Hart Career Center, and Presser Arts Center courses or other courses more tailored to their interests. Cadets are required to have 28 credits to graduate.

### **Strategic Partnership Opportunities For Cadets**

**Triumph Program** Eligible cadets can get an early start on college through MMA’s Triumph Program. MMA is proud to partner with William Woods University (WWU) to provide the Triumph Program to our cadets. These are dual credit (DC) courses, and are limited to 11<sup>th</sup> and 12<sup>th</sup> grade cadets.

**Hart Career Center** MMA also collaborates with the Davis H. Hart Career Center, which offers a variety of career and technical programs. The programs provide entry level skills and training in technical and service job areas that are in demand in the current economy. Secondary cadets receive high school credit for their career center classes. Hart Career Center courses are limited to 11<sup>th</sup> and 12<sup>th</sup> grade cadets only.

**Presser Arts Center** Instruction in a variety of disciplines including acting, stagecraft, and communication are offered by Presser Arts Center.

### **Postsecondary Credit Opportunities**

#### **Dual Credit Enrollment**

Dual enrollment enables cadets to take college courses. Dual enrollment cadets will receive both high school and college credit for courses taken in partnership with, or at, a college. Dual enrollment is based on the premise that qualified cadets have opportunities to take college-level work with the possibility of transferring credits toward their college degree. Approval by the director of college and career counseling and the registrar is required for dual enrollment. Credits vary depending on the requirements of the course(s) taken.

#### **Triumph Program College Dual Credit Class Electives**

**William Woods University** - For Juniors and Seniors Only

Calculus

College Algebra

English Composition I & II

Intro to Speech Communication

Intro to Equine Management and Riding

Concepts of Leadership

#### **Hart Career Center Electives**

**Mexico Public Schools** - For Juniors and Seniors Only

Agricultural Construction I & II

Agricultural Science I & II

Auto Mechanics I & II

Computer Networking

Computer Science

Construction Technology I & II

Cosmetology I

Diesel Mechanics I & II

Graphic Arts Occupations I & II

Health Occupations

Marketing

PLTW: Pathway to Engineering

Welding Technology I & II

## **GRADE POINT AVERAGE (GPA) AND CLASS RANK (weighted)**

Grades earned along with the weighting of a course factor into determining GPA and class rank. GPA and class rank are often used by colleges when considering the strength of a cadet's application. School-wide GPA is calculated after each semester. Senior class ranking is determined by cumulative, weighted GPA (Final Grade) (Attempted Credits) = Quality Points  
(Total Quality Points) / (Total Attempted Credits) = Grade Point Average

Cadets who register for a course have made a commitment to complete the course and are expected to do so. Class schedules and teacher assignments are set in the Spring, for the following school year, based upon cadet needs and requests. Although schedule change requests will be considered during an add/drop period, they are subject to approval through the schedule change process, beginning with the cadet's advisor. The deadline for add/drop is the end of the second week of classes.

A schedule change outside the add/drop period can cause a significant disruption to cadets and teachers. It will only be made when required due to a scheduling error, improper course placement, the need to complete a graduation requirement, or the cancellation of a course. A shift in levels for a required course, due to a course being too demanding or not demanding enough, may only take place with the approval of the parent/guardian, teachers, the Learning Support Specialist, and the Academic Leadership Team. Course changes based solely on preference will not be considered after the add/drop period.

### **GRADING SYSTEM**

<b>GRADE</b>	<b>DUAL CREDIT COURSES</b>	<b>REGULAR COURSES</b>	<b>Numeric Score Letter Grade</b>	
			A+	97-100
A	5	4	A	93-96
B	4	3	A-	90-92
C	3	2	B+	87-89
D	2	1	B	83-86
F	0	0	B	80-82
			C+	77-79
			C	73-76
			C-	70-72
			D+	67-69
			D	63-66
			D-	60-62
			F	Below 60

## POSTSECONDARY ADMISSION REQUIREMENTS

Most four-year colleges prefer applicants in the top one-third of their class, with a “B” average or better in college preparatory subjects. However, many colleges will accept cadets with average grades who have demonstrated particular skills and/or exceptional qualities of character and leadership.

	<b>Highly Selective Colleges</b>	<b>4-Year Colleges</b>	<b>2-Year &amp; Technical Colleges</b>
<b>English</b>	4 years	4 years	4 years
<b>Math</b>	4 years	3-4 years	3-4 years
<b>Social Studies</b>	3-4 years	3 years	3 years
<b>Science</b>	4 years	3-4 years	3 years
<b>World Language</b>	3-4 years	2-3 years	0-2 years
<b>Fine Arts</b>	1 year	1 year	.5 year

### **COLLEGE ADMISSION:**

The following criteria are looked at closely by college admissions personnel.

1. Academic record: subjects taken, degree of difficulty, level of achievement (GPA and class rank)
2. Standardized test scores: most colleges require ACT/SAT.
3. Extracurricular and Volunteer Activities: The emphasis placed upon these varies from college to college.

Cadets are advised to follow a college preparatory program through their four years of high school in order to maximize their post-secondary choices and opportunities.

## REQUIREMENTS FOR PARTICIPATION IN COLLEGE ATHLETICS

Cadets who plan to participate in Division I or Division II college athletics must register with the NCAA Clearinghouse. The Clearinghouse issues a preliminary certification report to the college once all materials have been submitted. After graduation, the Clearinghouse will review final transcripts to make a final certification decision according to NCAA standards.

To be certified by the Clearinghouse, each graduate must earn a grade point average of at least a 2.3 in the core classes listed below and receive a minimum score on the SAT Reasoning Test or ACT.

Only core courses approved by the NCAA can be used to calculate GPA and class rank. The following chart shows the minimum core courses.

<b>Subject Area</b>	<b>Division I</b>	<b>Division II</b>
<b>English</b>	4 credits	4 credits
<b>Math (Algebra I or higher)</b>	3 credits	3 credits
<b>Science</b>	2 credits	2 credits
<b>Additional English, Math or Science</b>	1 credit	1 credit
<b>Social Sciences</b>	2 credits	2 credits
<b>Additional Classes</b>	4 credits	4 credits
<b>(English, Math, Science, Social Science, or World Language)</b>		
<b>TOTAL CORE UNITS REQUIRED</b>	<b>16 credits</b>	<b>16 credits</b>

To receive more information on the eligibility requirements, please refer to the NCAA Guide for the College Bound Cadet Athlete available online at the NCAA Clearinghouse.

<http://www.ncaa.org/cadet-athlete/play-division-i-sports>

### **Collegiate Athletics Eligibility**

Missouri Military Academy provides a curriculum that can qualify a cadet to be eligible to participate in collegiate athletics. Cadets who follow the recommended course of study to attend a four year college/university will have the rigor required by Division I and Division II NCAA and NAIA institutions. Cadets and parents are encouraged to learn more about the requirements for compliance in college sports by visiting the NCAA Clearinghouse at <http://www.web3.ncaa.org/ecwr3> or the NAIA Clearinghouse at [NAIA](http://www.naia.org). You may also contact the MMA's Athletic Director and/or Director of College and Career Counseling for additional information.

For any questions regarding athletics at MMA, please contact Mr. Brian Meny, Athletic Director at [brian.meny@missourimilitaryacademy.com](mailto:brian.meny@missourimilitaryacademy.com) or at 573-581-1776, ext. 423

## NAVIANCE

Naviance is a Web-based service designed especially for cadets and parents to use to help in making decisions about courses, colleges, and careers.

### **NAVIANCE WILL ALLOW PARENTS AND CADETS TO:**

1. Get involved in the planning and advising process – Build a resume, complete online surveys, and manage timelines and deadlines for making decisions about colleges and careers
2. Research colleges – Compare GPA, standardized test scores, and other statistics for cadets who have applied and been admitted in the past
3. Sign up for college visits – Find out which colleges are visiting our school and sign up to attend those sessions
4. Request transcripts for college applications
5. Log community service hours

Naviance also lets us share information with parents and cadets about up-coming meetings and events, local scholarship opportunities, and other Web resources for college and career information. Parents and cadets will each receive their own username and password to login to Naviance.

We hope this resource is helpful. If you have further questions about Naviance, please contact our Registrar, Pearl Newbrough, at ext. 232.

## **CIVIC READINESS AND EDUCATION**

Civic-readiness is demonstrated when individuals acquire and demonstrate knowledge, skills, actions, and dispositions that citizens in a republic need to fulfill, including obligatory civic rights and responsibilities within local communities, states, the nation, and the world.

Civic readiness includes:

1. **Civic Knowledge.** Civic knowledge includes a fundamental understanding of the structure and function of government, civic rights, civic responsibilities, and the processes by which laws and policies are made. Civic knowledge includes an understanding of the history that shapes the present, and the geography, demography, and economics that impact the policies of local, state, national and international governments.
2. **Civic Skills.** Civic skills are the skills necessary to participate as informed, thoughtful, and engaged citizens in a republic. These skills encompass thoughtfully speaking, listening, collaborating, community organizing, and public advocacy. Civic skills are necessary for critical thinking, rational thinking, and collective action. Additionally, civic skills require the ability to gather and process information, including opposing viewpoints, in order to demonstrate a substantial understanding of why that view is held.
3. **Civic Actions.** Civic actions include voting, volunteering, participating, collaborating, deliberating, speaking, and other activities designed to assist others and influence opinions. By gathering, analyzing, and communicating information, civic-ready individuals can be advocates while respecting and understanding differing opinions and processes, therefore being able to share information, make persuasive arguments, and impact policy. The duties of citizenship include active participation in the improvement of a citizen's community, state, country, and world, and the value and practice of civil discourse between opposing interests.



4. **Civic Dispositions.** Civic dispositions are personal commitments to ideals important in a democracy that include concern for the constitutional rights and freedoms of others; a recognition of the need for public welfare, safety, and fairness; and a respect for the processes and laws that regulate our republic. This is part of a citizen's broader service to society.

### **EMPLOYABILITY SKILLS**

1. Ability to work collaboratively in a diverse team structure
2. Ability to make decisions and solve problems
3. Ability to communicate both orally and in writing with people inside and outside the organization
4. Ability to plan, organize and prioritize work
5. Ability to obtain and process information
6. Ability to analyze quantitative data
7. Technical knowledge related to the job
8. Proficiency with information technology
9. Ability to create and/or edit written reports
10. Ability to positively influence others

### **CORPS OF CADETS LEARNING OUTCOMES**

As cadets work towards graduation they are expected to make progress and achieve proficiency in the following areas as members of the corps of cadets:

1. Know and live by MMA standards of conduct and personal appearance
2. Demonstrate self-control, self-direction and personal accountability
3. Adhere to the Honor Code, displaying ethical and moral behavior
4. Become a productive and supportive team member and a patriotic citizen
5. Become culturally aware, display respect and consideration for others and embrace appreciation for diversity
6. Develop excellent time management skills, a positive work ethic and an eye for attention to detail
7. Demonstrate respect for authority and display military bearing and social etiquette
8. Demonstrate positive character development and personal integrity
9. Successfully live in a shared community environment, and develop a healthy lifestyle and habits
10. Make the right choices and avoid high-risk behavior
11. Demonstrate knowledge of MMA customs and traditions
12. Become a positive leader and role model with an understanding of authority, responsibility, and accountability

## REQUIREMENTS FOR GRADUATION

A high school diploma at Missouri Military Academy requires a total of 28 earned credit hours. Each credit hour is earned over the course of one academic semester or year.

Graduation requirements exceed Missouri state requirements and may not reflect every cadet's course load. MMA cadets will be individually advised to complete courses consistent with their preferred college or university's admission requirements, which commonly include, in addition to the below requirements, two-three years of a foreign language and four years of mathematics. For a full list of MMA courses, please go to the Academy's website: [www.missourimilitaryacademy.org](http://www.missourimilitaryacademy.org)

### **CADETS MUST COMPLETE, AT MINIMUM, THE FOLLOWING TO EARN A HIGH SCHOOL DIPLOMA:**

1. English: 4 credits
2. Speech: 1 credit
3. Math: 3 credits
4. Science: 3 credits; including one lab
5. Social Studies: 3 credits (Must include U.S. History and Economics/U.S. Government)
6. Fine Arts: 1 credit
7. Practical Arts: 1 credit
8. Physical Education: 1 credit
9. Health: .5 credit
10. Personal Finance: .5 credit
11. Technology: 1 credit
12. JROTC/LET: Continuous enrollment in Leadership Education courses (1 per year): 1-4 credits
13. Electives: 5-8 credits
14. Community service requirement: High school cadets must complete 16 hours of community service each year they are enrolled at MMA. (Middle school cadets must complete 8 hours of community service each year.)

Minimum number of credits for graduation: 28

Each graduating cadet must apply to at least 2 colleges prior to Thanksgiving, 4 colleges prior to spring furlough (6 total) and be accepted to 2 colleges. Seniors must also apply for at least 4 scholarships prior to spring break.

# **ACADEMICS**

## **Grade 7-8 Academic Overview**

For grade 7 and grade 8, courses are divided into ability-based groups that reinforce the middle school curricular objectives.

### **Grade 7-8 Core Courses**

Language Arts 7

Language Arts 8

Pre-Algebra 7

Pre-Algebra 8

Earth Science 7-8

Life Science 7-8

World History 7-8

U.S. History 7-8

### **Elective Courses**

Preparatory Band

Choir 7-8

Private Music (with approval)

Bagpipes

Art 7-8

PE 7-8

Project Lead The Way: Automation and Robotics

Reading Intervention

Introduction to Cybersecurity

JROTC (8th grade only when offered)

### **Accelerated Courses**

Algebra I

Biology I

English I

Academy Band

Chinese I

Spanish I

## Grade 9-12 and Post-Graduate Academic Overview

### English

ELL I  
ELL II  
ELL III  
English I  
English II  
English III  
English IV  
English Comp 1 (DC)  
English Comp 2 (DC)

### Speech

Communications  
Intro to Speech Comm (DC)

### Mathematics

Algebra I  
Algebra IA  
Algebra IB  
Algebra II  
Geometry  
Functional Geometry  
Integrated Math  
Pre-Calculus  
Statistics  
College Algebra (DC)  
Calculus (DC)

### Science

Biology I (Lab)  
Biology II (Lab)  
Chemistry I (Lab)  
Chemistry II (Lab)  
Earth and Space Science  
Environmental Science  
Physical Science  
Physics I (Lab)  
Physics II (Lab)  
PLTW: Engineering Essential  
PLTW: Intro to Engineering Design

### Social Studies

Economics/  
US Government  
US History  
World Geography  
World History

### Personal Finance

Personal Finance

### Fine Art

Art Fundamentals  
Painting/Sculpture  
Choir  
Academy Band  
Preparatory Band  
Jazz Band  
Bagpipes  
Private Music -  
Instrumental and Vocal  
Music Appreciation  
Music Theory  
Acting I/II/III/IV  
Backstage Theatre I/II/III  
Intro to Performance-Stunts  
and Combat

### Foreign Languages

Chinese I/II  
Spanish I/II/III

### Military Education

JROTC I (9<sup>th</sup> grade)  
JROTC II (10<sup>th</sup> grade)  
JROTC III (11<sup>th</sup> grade)  
JROTC IV (12<sup>th</sup> grade)  
JROTC Cybersecurity I/II  
Marksmanship

### Physical Education

Health  
PE  
Strength and Conditioning  
Intro to Performance-Stunts  
and Combat

### Practical Art

Accounting I  
Accounting 2  
Backstage Theatre I/II/III  
Business Law  
Entrepreneurship  
International Business  
Intro to Business  
Marketing  
Graphic Design  
Yearbook

### Technology

Technology Intern  
PLTW Engineering Essential  
PLTW Intro to Engineering Design

### General Electives

ACT Prep English  
ACT Prep Math  
ACT Prep Science  
Concepts of Leadership (DC)  
Intro to Equine Management  
and Riding (DC)

### Juniors & Seniors Only

#### Hart Career Center

Agricultural Construction I/II  
Agricultural Science I/II  
Auto Mechanics I/II  
Computer Networking  
Computer Science  
Construction Technology I/II  
Cosmetology I  
Diesel Mechanics I/II  
Graphic Arts Occupations I/II  
Health Occupations  
Marketing  
PLTW: Pathway to  
Engineering  
Welding Technology I/II

#### Presser Performing Arts Center

Acting I/II/III/IV  
Backstage Theatre I/II/III  
Communications  
Intro to Performance-Stunts  
and Combat

#### Triumph Program

Calculus (DC)  
College Algebra (DC)  
English Composition I (DC)  
English Composition II (DC)  
Intro to Speech Comm. (DC)  
Concepts of Leadership (DC)  
Intro to Equine Management  
and Riding (DC)

## MMA COURSE DESCRIPTIONS

### **ARMY JROTC/LET (Leadership Education Training) DEPARTMENT**

The Army JROTC/LET program is designed to teach high school cadets the value of citizenship, leadership, service to the community, personal responsibility, and a sense of accomplishment, while instilling in them self-esteem, teamwork, and self-discipline. Cadets will learn about the birth of the JROTC program, as well as its purpose of enabling cadets to meet their goals for success.

#### **Army JROTC/LET I**

*Grade 9*

*1 Credit*

Study leadership theory and application, foundation for success, communication/study skills, citizenship, military customs and courtesies, physical training, drill, map reading, and the history and objective of JROTC.

#### **Army JROTC/LET II**

**Prerequisite: Army JROTC I**

*Grade 10*

*1 Credit*

Study of wellness, fitness and first aid, drug awareness, ethical values and principals of good citizenship in American history and Government. Demonstrate knowledge of drill, map reading and physical training, with emphasis on methods of instruction. Cadets will also receive CPR training to meet the Missouri state graduation requirement.

#### **Army JROTC/LET III**

**Prerequisite: Army JROTC II**

*Grade 11*

*1 Credit*

Study of leadership strategies, foundation of success, managing conflict, career planning, financial planning, and citizenship in American history and government with continued practical work in leadership, drill, technology awareness, methods of instruction, map reading and physical training.

#### **Army JROTC/LET IV**

**Prerequisite: Army JROTC III**

*Grade 12*

*1 Credit*

Demonstrate leadership potential as a role model, coach, counselor, management skill and assistant instructor. Study service to the Nation and financial planning, with continued practical work in drill, technology awareness, physical training and command and staff principles.

#### **JROTC Cybersecurity**

*Grades 9-12, Post-Graduate*

*1 Credit*

This course begins with the fundamentals of JROTC Leadership Training. Cybersecurity year one focuses on the foundational skills needed to begin a pathway into cybersecurity. It begins with an introduction to ethics and cybersecurity, moves on to global connectivity, and then transitions to understanding hardware, operating systems, networks, cryptography, and operating procedures. The course ends with a service-learning oriented capstone project that encourages problem solving and team building. This course covers topics associated with CompTia A+ certification. Note: JROTC Cybersecurity cadets receive LET I/II/III/IV credit currently. Dual enrollment not required.



**Marksmanship**

*Grades 9-12, Post-Graduate*

*.5 Credit*

The marksmanship class is focused at providing rifle safety, marksmanship training, and lessons on individual concentration and mental stability. Cadets will learn to maintain and maximize their equipment, respect themselves, and hone marksmanship skills. Rifle marksmanship is an individual sport, and as a result, individual improvement is vital for success.

There is a 10 person limit per section on participation due to resource constrictions in the range.

## **BUSINESS/TECHNOLOGY PATHWAY DEPARTMENT**

The business department offers a selection of courses designed to help cadets develop skills and enhance learning for future educational and business opportunities. The fundamental goal of this department is to empower young men to unlock their potential of academic excellence with critical thinking, creativity, and collaboration. The department has a dual approach with technology and business preparation with partnership between the two approaches. Accounting I and II, international business, and business law are essential in preparation for business degrees. Each class is enhanced with the use of technology to make sound accounting decisions, improve reading, writing, critical thinking skills, cosmopolitanism, and improve communication skills. The Future Business Leaders of America Chapter is a unifying factor for the department. District and state competitions, as well as leadership conferences, allow cadets to excel and expand their learning beyond the classroom.

### **Introduction to Cybersecurity 7-8**

*Grades 7-8*

*0 Credit*

#### **Prerequisites: Designed for beginners**

This course prepares cadets with crucial skills to be responsible citizens in a digital future. Foundational cybersecurity topics are learned including digital citizenship and cyber hygiene and information literacy. The course utilizes a blended classroom approach. The content is a mix of web-based and physical activities. Cadets will investigate cyber related topics, reflect on them, discuss them, create digital presentations and engage in collaborative exercises with classmates. Cadets will complete a culminating course project where they will create a public service announcement. This is not a coding intensive course, but rather teaches the basics of protecting personal data and being aware of how cybersecurity is important for the information age in which we live.

### **Project Lead the Way: Automation and Robotics 7-8**

*Grades 7-8*

*AB Schedule*

*0 Credit*

Cadets are given the opportunity to combine mechanisms with input and output devices to automate the mechanisms. Construction and programming skills are layered, and provide cadets with the opportunity to connect their learning throughout the lessons in the unit. Cadets take on the role of interns, and work in teams to identify design requirements and create prototypes to meet the needs of clients. They also explore different aspects of automation and robotics, and experience how solving real-life problems involves the teamwork of mechanical engineers, software developers, and electrical engineers

### **Accounting I**

*Grades 9-12, Post-Graduate*

*1 Credit*

#### **Prerequisites: English skills ELL III and above**

Cadets will learn basic accounting principles to make financial decisions. Accounting for a proprietorship and a merchandising business organized as a corporation will be taught using written forms and information technology software.

## **Accounting II**

*Grades 10-12, Post-Graduate*

*1 Credit*

### **Prerequisites: Accounting I completion**

Cadets will learn accounting adjustments and valuation, departmentalized accounting, corporation accounting and management accounting. Critical accounting skills and information technology practices prepare cadets for ongoing accounting and business success.

## **Advanced Accounting**

*Grades: 11-12, Post-Graduate*

*1 credit*

### **Prerequisites: Accounting I and II**

Cadets will learn departmentalized accounting, management accounting, then continue with accounting for partnerships and not-for-profit corporations. Critical accounting skills prepare cadets for ongoing accounting and business success.

## **Business Law**

*Grades 9-12, Post-Graduate*

*.5 Credit*

### **Prerequisites: Strong English language skills**

This course covers the two main aspects of business law— personal and business. Personal aspects are those most frequently encountered in daily life and those resulting from precedent-setting cases and recent statutory enactments. These laws protect individuals from infringement of their personal rights and constitutional freedoms. This particular course, therefore, emphasizes the concerns of individuals as they encounter business law in their personal lives and occupational pursuits.

## **Entrepreneurship**

*Grades 9-12, Post-Graduate*

*1 Credit*

Prerequisites: none

Principles of Entrepreneurship introduces cadets to a wide array of entrepreneurial concepts and skills, including the role of entrepreneurship in our economy, entrepreneurial discovery processes, ideation, and preliminary start-up venture planning. Cadets also develop an appreciation for marketing's pivotal role in the development and success of a new business. They become acquainted with channel management, pricing, product/service management, and promotion. Cadets conduct thorough market planning for their ventures: selecting target markets; conducting market, SWOT, and competitive analyses; forecasting sales; establishing marketing goals and objectives; selecting marketing metrics; and setting a marketing budget. The capstone activity in the course is the development of detailed marketing plans for cadets' start-up businesses.

## **Graphic Design**

*Grades: 9-12, Post-Graduate*

*1 Credit*

This course provides a thorough understanding of visual communication by utilizing the essential elements and principles of design. It covers the complete design process, from the initial concept phase to the final document creation. A variety of documents and design products will be created during the course including logos, flyers, presentations, YouTube videos and a small website.

## **International Business**

*Grades 10-12, Post-Graduate*

*1 Credit*

Cadets will learn the basic foundations of business within the global economy. This includes economic systems, cultures, governments, money systems, legal systems, small business management, and human resource management. The class centers on current events, class discussions, research, and presentations

## **Introduction to Business**

*Grades 9-10*

*.5 Credit*

In Introduction to Business, the course introduces the principles of economics and examines how economic decisions affect individual consumers, businesses, countries, and international competition. The course describes various forms of business ownership and organization, the role and work of management, and how to undertake career planning. Cadets learn about specialized operations in business and how technology affects those operations. In further detail, cadets will be able to compare and contrast needs and wants, distinguish between goods and services, and describe the types of economic resources and basic economic problems. Cadets will be able to describe social responsibility issues and the benefits and costs of being socially responsible.

## **Marketing**

*Grades: 9-12, Post-Graduate*

*.5 Credit*

*AB Schedule*

The course is designed to provide an understanding of the fundamental marketing processes and an orientation to the American free enterprise system. Cadets will critically explore marketing principles, concepts and models. Traditional ways of marketing such as selling, advertising and direct to consumer will be covered in addition to digital marketing methods, such as Facebook, TikTok, Snap etc. Case studies and projects will also be utilized.

## **Personal Finance**

*Grades 9-12, Post-Graduate*

*.5 Credit*

### **Prerequisites: Basic math, English reading and writing skills**

Understanding financial management concepts is an important life skill. From credit to insurance to taxes, it is imperative that cadets understand the consequences of their choices. By wisely managing their money, cadets become citizens that are more responsible. A thorough understanding of financial concepts, with practical application through activities and projects, will enable cadets to leave this course with applicable, useful skills for life. This course surveys the basic personal financial needs of most individuals and emphasizes the basics of budgeting, saving, checking, investments, credit, the wise use of insurance, and paying and preparing income tax returns. After high school, cadets face a world filled with possibilities, and the more knowledge they can acquire, the higher the probability that their financial future will be secure. Cadets taking this course will learn to be better prepared for their financial futures.

## **Technology Intern**

*Grades 11-12*

*1 Credit*

**Prerequisites: Cadets who have taken a coding class and have approval from the Chief Information Officer may take this class.**

An opportunity to obtain real-world experience with troubleshooting, research, design and related activities while assisting the Technology Department. Each class participant will aid with help desk tickets and potentially larger IT development projects.



## ENGLISH DEPARTMENT

The English program at Missouri Military Academy is designed to provide cadets with opportunities to develop critical thinking skills using multi-modal communication; reading, writing, handwriting, speaking and listening skills. Our standards-based curriculum aims to enhance the learning process while promoting freedom of inquiry, and creating an enthusiasm for literature and the written word. The English program exposes our cadets to different cultures, literary genres, and styles while preparing our cadets to approach literature and writing with a critical lens. Our course offerings emphasize college readiness and standards-based learning. While some courses are required and must be passed as a prerequisite, we offer electives that broaden cadet experience which can also provide college credit.

Cadets in grades 7-8 take English Language Arts classes all year on the AB schedule to better prepare them for high school courses.

During the high school or post-secondary school level, cadets are required to earn four credits of English.

### **Language Arts 7**

*Grade 7*

*0 Credit*

*Meets all year on the AB schedule*

Middle School Language Arts 7 is a study of language, literature, composition, and oral communication with a focus on exploring different literary genres. This course focuses on building the foundations of grade-level reading and writing through literature, developing a critical eye for drafting, editing, and the writing process.

### **Language Arts 8**

*Grade 8*

*0 Credit*

*Meets all year on the AB schedule*

Middle School Language Arts 8 is a study of different types of language, literature and communication with a focus on texts from other cultures and traditions. This course focuses on building on the foundations of the grade-level reading of a variety of texts both fiction and nonfiction, developing a critical eye for editing, and writing across genres. Additionally, this course intends to introduce cadets to the rigor and challenge of high school level English courses.

### **ACT Prep: English**

*Grades: 11-12*

*.5*

*Credit*

*AB Schedule*

Each ACT Prep Class is designed to prepare cadets to take the ACT by equipping them with learning skills and test-taking strategies. The curriculum will emphasize listening and note-taking techniques, test-taking strategies, reasoning and thinking skills, memory technique, reading in the content areas, and vocabulary development. Cadets are introduced to the test format, different styles of questions, and time-saving skills for each content section to help maximize test scores.

## **Communications Class (via Presser Performing Arts Center)**

*Grades 9-12*

*1 Credit*

*Speech or Communications is required for graduation.*

Fundamentals of Communications is designed to develop effective communication skills, critical thinking and astute listening. Skill areas stressed are communicating with self (intrapersonal communications), communicating with others (interpersonal communications), small group communications, active listening and public speaking. Content is presented and practiced in the context of different situations and audiences. The theories of public communication are incorporated.. Focus will be given to speech and debate skills which help cadets become effective communicators, an essential skill required by all facets of life. Attention will be given to: the common fallacies in argumentation, debate, delivery styles, expository, impromptu, informative, storytelling, prose, poetry, oral interpretation, duet acting, humorous interpretation, original oratory and extemporaneous speaking.

## **English I**

*Grade 9*

*1 Credit*

### **Prerequisite: none**

English I introduces cadets to the rigorous demands of English/Language Arts at the high school level by providing fundamental studies of literary genres, composition techniques, and essay styles. Cadets will develop grammar, syntax, and speaking and listening skills which will assist in their test taking abilities.

## **English II**

*Grade 10*

*1 Credit*

### **Prerequisites: English I**

English II builds upon skills from English I by developing analytical skills in reading world literature and writing, and continues the work towards mastery of grammar, syntax, speaking, and listening skills. Additionally, cadets will begin to focus on test-prep for standardized tests

## **English III**

*Grade 11*

*1 Credit*

### **Prerequisites: English I, English II**

English III is a survey of the American canon, and continues the scope of learning from English I and II to turn towards college-preparatory work. Cadets begin critical analysis of novels, short stories and poetry. Cadets will expand style, structure, and content in essays of all genres, fine-tune grammar and syntax in writing, Additionally, cadets will focus on mastering the skills of speaking and listening, as well as continuing to prepare for test-prep for standardized tests.

## **English IV**

*Grades 11-12, Post-Graduate*

*1 Credit*

### **Prerequisites: English I, English II, English III**

English IV is a survey of the British literary canon. It builds upon the American Literature and Composition course and focuses on literature and informational texts, writing modes and genres (e.g., non-fiction, poetry, short stories, and excerpts from various dramas, and novels). As with

all English classes, a research paper will also be required. To prepare graduates for the real world, business writing applications will also be explored (e.g., resumes, letters of introduction, letters of resignation, etc.)

### **Reading Intervention 7-12**

*Grades 7-12*

*1 Credit*

This course provides high school cadets with an opportunity to increase reading, writing, test taking, and study skills at their *instructional level*. Each class is designed to meet the individual needs of cadets within a small group setting. Cadets gain confidence and their skills improve through instruction in comprehension, writing, study skills, and test taking strategies. Cadets read fiction and nonfiction books and will have many opportunities to develop reading skills. Cadets are assigned to this course based on standardized test scores and ability.

### **Yearbook**

*Grades 10-12*

*1 Credit*

*AB Schedule*

#### **Prerequisites: B or better in English I**

This course builds on the writing skills emphasized in the English Program at MMA. Cadets will focus their learning on journalistic style writing, photographing, and demonstrating these skills in the production of the yearbook. Yearbook is an elective credit and may not be taken in lieu of English I, II, III or IV. It may be taken to satisfy the practical art requirement.

### **Triumph Program Courses (College Dual Credit)**

Academically qualified cadets can get an early start on college through MMA's Triumph Program. Qualifying cadets can finish high school with up to one year of college, earning credits towards their college degree at the same time they earn their high school diploma. MMA is proud to partner with William Woods University (WWU) to provide the Triumph Program to our cadets. With a history of education dating back to 1870, WWU distinguishes itself as a cadet-centered and professions-oriented university committed to the values of ethics, self-liberation, and lifelong education of cadets in the world community. College Triumph courses are taught by WWU instructors at MMA's campus.

To qualify to take these courses, cadets must have a cumulative GPA of 3.0 or above or meet the ACT test requirements. Triumph courses are limited to 11<sup>th</sup> and 12<sup>th</sup> grade cadets.

#### **ENG 101 – English Composition I – DC**

**Prerequisite: English ACT 19+ or ENG 099**

Cadets learn to summarize and critique the ideas, theories, and arguments found in college level academic and non-academic articles. Basic research skills and critical thinking skills are also components of the course. Furthermore, the cadet will recognize the ways in which plagiarism may be prevented through appropriate and accurate documentation of source material.

**College Credit Hours: 3; High School Credit Hours: 1**

#### **ENG 102 – English Composition II –DC**

**Prerequisites: ENG101**

Cadets learn how to draft, revise, and edit multiple-source papers that have reflective analysis, sound argumentation, clear organization, well developed paragraphs, and correct sentences. Furthermore, cadets will recognize the ways in which plagiarism may be prevented through appropriate and accurate documentation of source material.

**College Credit Hours: 3; High School Credit Hours: 1**

#### **COM 101 – Intro to Speech Communication - DC**

Designed to introduce the cadet to the area of oral communication with exercise covering the various phases.

**College Credit Hours: 3; High School Credit Hours: 1**

## **ENGLISH LANGUAGE LEARNERS (ELL) DEPARTMENT**

The goal of the English Language Learners (ELL) Department is to give cadets the tools they need in reading, writing, listening, and speaking to graduate into the mainstream English courses. All cadets must take the Duolingo test, and test scores will determine what level of ELL a cadet will place into regardless of age or grade.

### **ELL I**

*Grades 7-12, Post-Graduate*

*1 Credit*

Cadets in ELL 1 should be able to understand intermediate-level vocabulary. Coursework continues to build on vocabulary skills with cadets exiting ELL I at an upper-intermediate level of vocabulary. Cadets are learning to form paragraphs. Intermediate grammar is introduced, such as the: past, present, future, irregular verb conjugations, and more advanced applications of grammar. Cadets will begin to read short stories and write several-sentence answers to questions. Emphasis is placed on writing a solid paragraph.

### **ELL II**

*Grades 7-12, Post-Graduate*

*1 Credit*

Cadets in ELL 2 will exit the course with an advanced-level of vocabulary and English grammar. Cadets will study historical perspectives while learning to form an opinion, analyze various points of view, and consider the perspective of the author. They will learn the difference between academic and social language. Focus will be placed on properly writing an essay, especially an argumentative essay.

### **ELL III**

*Grades 7-12, Post-Graduate*

*1 Credit*

ELL 3 is the bridge between the ELL Program and English 1 at Missouri Military Academy. Cadets will follow the combined curriculum of the middle school courses at MMA. All cadets will learn how to write a personal narrative and discover why it is important. They will read a variety of short stories and other literature.

## FINE ARTS DEPARTMENT

Cadets taking fine arts courses develop emotional, motor, language, communication, and thinking skills, as well as a work ethic of routine and commitment. Fine arts stimulates brain development and cognitive ability, as well as creating opportunities for artistic expression.

### **Art 7-8**

*Grades 7-8*

*0 Credit*

In middle school art class, our course of study will focus upon problem-solving, using the elements and principles of design in order to create expressive, but well-organized works of art. Cadets will be exposed to a variety of both two and three-dimensional materials and mediums. The class subject is “Around the World”, which is learning about the cultures and traditions of other countries.

### **Preparatory Band**

*Grades 7-12, Post-Graduate*

*0 Credit*

*AB Schedule*

#### **No previous music experience is necessary**

The purpose of this course is to either start or continue studies in instrumental music. This is a performance-based class requiring participation, performance, and attendance in class and at rehearsals as an integral part of the cadet's grade.

### **Choir 7-8**

*Grades 7-8*

*0 Credit*

*AB Schedule*

#### **No previous music experience is necessary**

Grade 7-8 choir is a vocal music course for cadets who would like to sing a variety of quality choral literature. Cadets taking the class will learn to sing properly and study and learn choral music. Team building and growth in leadership skills are also a benefit to taking part in choir. The cadet choir will perform at school events throughout the year.

### **Music 7-8**

*Grades 7-8*

*0 Credit*

*AB Schedule*

This course will introduce the Western musical canon, vocabulary, and various composers and styles through listening, writing, discussion, and other music-based activities. The course will emphasize how music relates to art, culture, and history. Previous musical experience is optional.

### **Academy Band**

*Grades 7-12, Post-Graduate*

*.5 Credit*

*AB Schedule*

#### **The ability to read music and completion of one or more years of training on an instrument is recommended**

The purpose of this course is to continue studies in instrumental music. This is a performance-based class requiring participation, performance, and attendance in class and at rehearsals as an integral part of the cadet's grade. Cadets will perform as part of a marching band.

**Preparatory Band**

*Grades 7-12, Post-Graduate*

*.5 Credit*

*AB Schedule*

**No previous music experience is necessary**

The purpose of this course is to either start or continue studies in instrumental music. This is a performance-based class requiring participation, performance, and attendance in class and at rehearsals as an integral part of the cadet's grade.

**Jazz Band**

*Grades 7-12, Post-Graduate*

*.5 Credit*

*AB Schedule*

**Prerequisites: Instrumentalists and singers who want to have the opportunity to rehearse and perform music that is stylistically within the jazz, pop and Latin genres.**

A proficient working knowledge of music notation and technical skills on the instrument being played is required in order to be successful in this ensemble. The course involves applying the fundamental skills of playing music stylistically in the jazz tradition. This involves reading music notation/jazz charts specific to the instrument and instrument sections, improvising solos over a set of chord changes, understanding chord symbols, understanding of chord/scale relationships, learning about harmony, form, and structure in jazz music. The Jazz Band provides musical support to MMA while delivering a vibrant musical experience for the cadets.

**Bagpipes**

*Grades 7-12, Post-Graduate*

*.5 Credit*

*AB Schedule*

**No previous music experience is necessary**

In this course cadets learn how to play the Great Highland Bagpipes. Cadets begin with a practice chanter and receive basic level instructions in reading, writing, listening & playing to begin developing their basic skills. There are classes for musicians who are at beginning, intermediate, and advanced levels.

**Private Music: Instrumental Instruction**

*Grades 7-12, Post-Graduate*

*.5 Credit*

*AB Schedule*

These courses are offered to any cadet who wishes to learn, or advance in, a musical instrument. There are opportunities in this class to form various small ensembles. One-to-one instruction is provided to learn how to read music.

**Choir 9-12, PG**

*Grades 9-12, Post-Graduate*

*.5 Credit*

*AB Schedule*

**No previous music experience is necessary**

High school choir is a vocal music course for cadets who wish to learn and perform music of all genres. In addition to proper vocal technique, cadets will also learn music reading, sight-singing, foreign language diction, and performance skills. Choir offers opportunities for cadets to develop team building and leadership skills. This group of singers will perform at Vespers and at other school events throughout the year. In addition to local performances, there are also various opportunities to perform at the state and national levels.

**Private Music: Vocal Instruction**

*Grades 9-12, Post-Graduate*

*.5 Credit*

*AB Schedule*

During this course, cadets will learn to apply the basic principles of healthy singing. During each weekly lesson, cadets will address posture, breathing, tone production, expression, diction, and vocal health. Cadets will apply these principles by learning songs in various languages and genres. Daily practice is expected. Cadets will have the opportunity for performance. Cadets will also have the opportunity to compete in district and state music contests.

**Music Appreciation**

*Grades 9-12, Post-Graduate*

*.5 Credit*

*AB Schedule*

The program is designed to ensure cadets gain direct access to music with the intention of promoting a broad understanding of the discipline.

**Music Theory**

*Grades 9-12, Post-Graduate*

*1 Credit*

This course will provide an introduction to fundamental theoretical skills in music, including but not limited to note identification, key identification, major and minor modes, foundational structures of rhythm and harmony, chord building, and analysis. In addition, students will show mastery of these concepts aurally through musical dictation and performance of simple rhythmic and melodic figures as well as written tests and exams. Previous musical experience is necessary.

**Art Fundamentals**

*Grades 9-12*

*1 Credit*

In Art Fundamentals, the course of study will focus upon problem-solving, using the elements of art and principles of design in order to create expressive, but well-organized works of art, focusing heavily on basic drawing skills. Cadets will be exposed to a variety of both two and three dimensional materials and mediums. Cadets will have daily opportunities to write about and discuss their own works, learn about art of the past and present, spend time learning about art styles and study about the works of other artists.

**Painting/Sculpture**

*Grades 10-12*

*1 Credit*

**Prerequisites: Art Fundamentals**

This class will focus on specific projects that are designed to give cadets an introduction to different styles of paintings and different mediums. Emphasis will be given to color theory and finding one's own style while studying the styles of other artists. While studying sculpture, the focus will be on three-dimensional media and processes, composition, as well as the elements of art and principles of design. Art history and critical thinking emphasized.



## **Presser Arts Center**

Presser Arts Center offers classes, camps and activities for people of all ages and skill levels. MMA and Presser Arts Center work together to offer cadets an opportunity to learn theatre and communication techniques.

### **Acting I & II**

*Grades 8-12*

*1 Credit*

This introductory course includes methods and techniques of training in acting, improvisation, staging, movement and characterization. **Participation in a live production is required for this course. This may be a Presser Arts Center production or an MMA staged production.**

### **Acting III & IV**

*Grades 9-12*

*1 Credit*

Prerequisite: **Acting II** or Instructor approval.

Acting III is a continuation of Acting II with emphasis on acting styles and classical pieces. Cadets will examine acting theories, stage voice and work on characterization techniques.

**Participation in a live production is required for this course. This may be a Presser Arts Center production or a MMA staged production.**

### **Backstage Theatre Production I & II**

*Grades 8-12*

*1 Credit*

Basic elements of scenic construction, design concepts, theatrical lighting, sound technologies, and stage management will be introduced and assessed through practical application.

The objective of this course is to introduce the cadet to the fundamental elements and principals of technical theatre through hands-on learning that makes use of the production facilities, operations, methods, and technologies used at the Presser Arts Center, and to relate these practices to those used in professional, amateur, and educational theaters.

The course will include a brief history of theatrical stages and technology. Cadets will learn the functions of the creative team, production staff, technicians and stage crew.

### **Backstage Theatre Production III & IV**

*Grades 9-12*

*1 Credit*

**Prerequisite:** Backstage Theatre Production II

An **advanced** course in theatrical design, construction, and production. Cadets will construct scenery, props, and stitching costumes for mainstage or black box productions. Academic units in stage lighting, sound engineering, construction, and makeup, will accompany hands on experiential learning. More responsibility to tech a production will be considered for the cadets advancing through Production IV. Emphasis will include: Prop building, Design, Makeup, Lighting and Sound. **Participation in the Stage Crew for a live production is required for this course.**

### **Communications Class (via Presser Performing Arts Center)**

*Grades 9-12*

*1 Credit*

*Speech or Communications is required for graduation.*

Fundamentals of Communications is designed to develop effective communication skills, critical thinking and astute listening. Skill areas stressed are communicating with self (intrapersonal

communications), communicating with others (interpersonal communications), small group communications, active listening and public speaking. Content is presented and practiced in the context of different situations and audiences. The theories of public communication are incorporated.. Focus will be given to speech and debate skills which help cadets become effective communicators, an essential skill required by all facets of life. Attention will be given to: the common fallacies in argumentation, debate, delivery styles, expository, impromptu, informative, storytelling, prose, poetry, oral interpretation, duet acting, humorous interpretation, original oratory and extemporaneous speaking.

### **Introduction to Performance Stunts & Combat**

*Grade 9-12, Post-Graduate*

*1 Credit*

#### **Prerequisites: None**

This course can be counted as a fine art, physical education or elective credit.

This class will teach cadets how to carry and use their bodies in movement for stage, film, or any other media. This class will work on coordination, balance, flexibility, strength, intention, spatial awareness, body awareness, alignment and core development. This is a creative exploration in how one can use their body to emote anger, protectiveness, sadness, regret, and peace all through nonverbal exploration. Stunts & Combat will address the entire body, stimulating the nervous system and increasing range of motion. This class has benefits for all cadets, not just performance cadets. Martial Arts forms will be studied such as Tai Chi. This is an introduction class, but will be a physically challenging. Only cadets in good standing will be approved to take this course.

## FOREIGN LANGUAGES DEPARTMENT

### Chinese I

*Grades 8-12, Post-Graduate*

*1 Credit*

#### **Prerequisites-ESL I, ESL II, English I, or comparable**

Chinese I provides Chinese language and culture learning through engaging lessons including dialogues and narratives, culture notes, grammar explanations, and exercises to cadets with little or no previous study of Chinese. This course focuses on the development and integration of the four language skills (listening, speaking, reading and writing). Chinese I introduces cadets to syllabic structure, pronunciation and writing system of modern standard Chinese. Cadets should be able to master beginner level vocabulary and learn to form cohesive sentences using basic grammar techniques.

### Chinese II

*Grades 10-12, Post-Graduate*

*1 Credit*

#### **Prerequisites-ESL I, ESL II, English I, or comparable, Chinese I**

Chinese II provides Chinese language and culture learning through engaging lessons including dialogues and narratives, culture notes, grammar explanations, and exercises. This course focuses on the development and integration of the four language skills (listening, speaking, reading, and writing).

### Spanish IA

*0 Credit*

*Grade 7*

*AB Schedule*

In Spanish IA, 7th grade cadets explore the world of Spanish-speaking people, while learning basic language patterns and conversational phrases.

### Spanish IB

*0 Credit*

*Grade 8*

*AB Schedule*

In Spanish IB, cadets in 8th grade expand on what they learned in Spanish IA and develop skills in speaking, listening, reading, and writing Spanish throughout the year.

### Spanish 1

*Grades 8-12, Post-Graduate*

*1 Credit*

#### **Prerequisites: ESL II or higher, English I, or comparable**

This introductory class is for cadets with little or no previous study of Spanish, focusing on all four language skills: listening, speaking, reading and writing, while emphasizing basic grammar, verb forms, and vocabulary and gender/number agreement. In addition to traditional methods of assessment, cadets participate in situational role-play, engage in beginning conversational scenarios and conduct cultural studies. Correct pronunciation and oral proficiency are primary goals. This requires daily emphasis on listening and speaking. The classroom experience will provide an appreciation and development of cultural awareness through various readings, media resources.

## **Spanish II**

*Grades 8-12, Post-Graduate*

*1 Credit*

**Prerequisites: Spanish I, ELL II or higher, English I, or comparable.**

This course continues to develop the writing, speaking and listening skills acquired in Spanish I. Emphasis is placed on establishing correct conversational patterns and understanding more advanced grammatical structures and syntax, written and oral comprehension and precise pronunciation are further developed.

## MATHEMATICS DEPARTMENT

Cadets in grades 7-8 take pre-algebra on the AB schedule all year in order to build their math skills in preparation for high school courses.

### **Pre-Algebra 7**

*Grades 7*

*0 Credit*

**Prerequisite: Basic Math skills**

*Meets all year on the AB schedule*

Pre-Algebra 7 is an introductory course for the middle school cadet designed to strengthen foundational concepts including number sense, operations with signed numbers, quantitative reasoning and effective representation of problem solving within verbal, numerical and graphical contexts.

### **Pre-Algebra 8**

*Grades 8*

*0 Credit*

*Meets all year on the AB schedule*

**Prerequisite: Basic Math skills**

The course connects the foundational concepts taught in Pre-Algebra 7 which are crucial to success in Algebra 1. This includes the understanding of patterns, relations and functions, representing and analyzing mathematical situations and structures using algebraic symbols, using mathematical models to represent and understand quantitative relationships, and analyzing change in various forms.

### **Algebra I**

*Grades 8-12, Post-Graduate*

*1 Credit*

**Prerequisite: Pre-Algebra or requisite scores from standardized testing**

After successfully completing this course, cadets will be able to use algebraic methods and techniques to solve problems that include functions, linear and quadratic equations, and polynomials. In addition, they will be able to demonstrate the ability to work with linear expressions, graphs, formulas and probability. Preparation for standardized testing is emphasized throughout the course. In preparing our cadets to meet the challenges of the 21<sup>st</sup> century, creativity, collaboration, and critical thinking will be emphasized to achieve the solution of problems. Cadets will be allowed and encouraged to communicate concepts and processes to one another to enhance understanding, while maintaining integrity of their own work and respect of others' opinions.

### **Algebra IA**

*Grades 8-12, Post-Graduate*

*1 Credit*

**Prerequisite: Pre-Algebra**

This course is the first half of a regular high school Algebra course. Topics covered will include solving linear equations for both equalities & inequalities, graphing & writing linear functions, and operations with polynomial equations and factoring.

### **Algebra IB**

*Grades 8-12, Post-Graduate*

*1 Credit*

**Prerequisite: Pre-Algebra and Algebra IA**

This is the second half of a regular high school Algebra course. Topics covered are solving

systems of linear equations, exponential functions, and sequences, solving & graphing quadratic functions, radical functions, and introduction to data analysis.

### **Functional Geometry**

*Grades 9-12, Post-Graduate*

*1 Credit*

#### **Prerequisite: Algebra 1 or equivalent**

Functional Geometry is a comprehensive study of geometric concepts which includes the basic elements of geometry, triangles, quadrilaterals, polygons, circles, trigonometry, congruents, and similarities in triangles. Cadets will also learn about surface area, volume and other concepts and processes to enhance understanding. At the discretion of the teacher, cadets may make use of an interactive notebook.

### **Geometry**

*Grades 9-12, Post-Graduate*

*1 Credit*

#### **Prerequisite: Algebra 1 or equivalent**

Geometry topics include the study of points, lines and planes, angle measure, classification of triangles and their properties, congruence and similarity in triangles. In addition, cadets will learn different types of quadrilaterals and their properties, the Pythagorean Theorem, special right triangles, trigonometric ratios, solving right triangles, circles, areas, and solids. The approach to the material will be axiomatic and proofs will be required throughout the course. Cadets will be allowed and encouraged to communicate concepts and processes to one another to enhance understanding, while maintaining integrity of their own work and respect of others' opinions.

### **Integrated Math**

*Grades 11-12, Post-Graduate*

*1 Credit*

#### **Prerequisite: Algebra 1 and Geometry**

Integrated math contains standards from all of the six conceptual categories; number and quantity, algebra, functions, modeling, geometry, and statistics and probability.

### **Algebra II**

*Grades 9-12, Post-Graduate*

*1 Credit*

#### **Prerequisite: Algebra 1**

Algebra II builds on and expands upon many of the topics from Algebra 1, but at a more refined and rigorous level. The concept of functions is a recurring theme throughout the year. Cadets will study representations and applications of linear and quadratic functions, polynomial functions, rational functions, exponential and logarithmic relations, sequences and series, and right triangle trigonometry. Problem solving skills will be developed in all areas of study.

### **Pre-Calculus**

*Grades 11-12, Post-Graduate*

*1 Credit*

#### **Prerequisite: Algebra 2**

Pre-calculus covers subsequent materials from the concepts involved in Algebra II and delves into deeper depths in Trigonometry which makes up the majority of the course. This forms the first part of the course before cadet's move on to the introductory Calculus topics. There will be opportunities for collaboration to enhance understanding.

## **Statistics**

*Grades 11-12, Post-Graduate*

*1 Credit*

### **Prerequisite: Algebra 2**

Statistics introduces cadets to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. The four broad conceptual themes are exploring data, planning a study, anticipating patterns, and statistical inference.

## **ACT Prep - Math**

*Grades 10-12*

*.5 Credit*

### **Prerequisite: Algebra II or equivalent**

A math skills building course offered to cadets that are preparing for the ACT exam. With the use of a graphing calculator, cadets will review number and quantity concepts, algebra concepts, functions, geometry concepts, basic probability and statistics concepts, modeling problems, and integrating essential skills which are all components tested on the ACT exam. The course will provide cadets with test taking strategies to maximize scores. Instructors will demonstrate how to effectively utilize graphing calculators on the ACT exam, and will provide an opportunity for cadets to complete practice tests for the math section on the ACT exam.

## **Triumph Program Courses (College Dual Credit)**

Academically qualified cadets can get an early start on college through MMA's Triumph Program. MMA is proud to partner with William Woods University (WWU) to provide the Triumph Program to our cadets. With a history of education dating back to 1870, WWU distinguishes itself as a cadet-centered and professions-oriented university committed to the values of ethics, self-liberation, and lifelong education of cadets in the world community.

To qualify to take these courses, cadets must have a cumulative GPA of 3.0 or above or meet the ACT test requirements. Triumph courses are limited to 11<sup>th</sup> and 12<sup>th</sup> grade cadets.

### **MAT 118 – College Algebra –DC**

#### **Prerequisite – MAT 099 Basic Algebra or equivalent**

A more rigorous and in-depth treatment of the material of MAT 099. Emphasis on the use of graphing calculators and the utility of algebra or modeling language for solving real-life problems.

**College Credit Hours: 3; High School Credit Hours: 1**

### **MAT 124 – Calculus I – DC**

#### **Prerequisite – MAT118 or MAT120 or ACT 25 or higher**

An introduction to the concepts of limits, continuity, differentiation of elementary functions, definite and indefinite integrals, and the Fundamental Theorem. Emphasis on use graphing calculators and the utility of mathematics as a problem solving tool. Extensive discussion of applications in natural science, social science, and business.

**College Credit Hours: 5; High School Credit Hours: 1**

## SCIENCE DEPARTMENT

The Science Department offers a wide variety of lab-based courses designed to challenge all of our cadets. Using a variety of strategies, cadets continue to build on problem solving skills while gaining an understanding of the process and content of biological, environmental, and physical sciences. In addition, we believe that cadets who study science can make informed decisions, are able to ask thoughtful questions, and can clearly communicate those questions and findings to those around them. Skills in reading, writing, and mathematics are important components of our science curriculum. The Science Department uses the Next Generation Science as a guide for teaching practices. Interactive boards and web-based resources are used extensively in every Science course.

### **Earth Science 7-8 (Semester 1)**

*Grades 7-8*

*0 Credit*

#### **Prerequisites: 6th Grade Science**

Middle School Earth Science is a general science course that focuses on the function of the Earth's systems. Emphasis is placed on matter, environmental awareness, materials availability, and the cycles that circulate energy and material through the earth system.

### **Life Science 7-8 (Semester 2)**

*Grades 7-8*

*0 Credit*

#### **Prerequisites: 6th Grade Science**

Middle School Life Science is a general science course designed to help cadets develop scientific literacy, deepen conceptual understanding, and apply scientific practices. Cadets explore concepts including the relationship between structure and function, the flow of energy and matter through living systems, heredity, and the diversity of life.

### **Project Lead the Way (PLTW): Automation and Robotics 7-8**

*Grades 7-8*

*0 Credit*

#### **Prerequisites: None**

Cadets learn about the history and impact of automation and robotics as they explore mechanical systems, energy transfer, machine automation, and information technology control systems. Cadets apply what they know to design and program automation devices, robotic arms, and more.

### **ACT Prep - Science**

*Grades 11-12*

*1 Credit*

#### **Prerequisites: None**

The ACT Science Preparation Course is an intensive and focused course designed for success on the science portion of the ACT Test which consists of 40 questions in 35 minutes. This course will focus on the interpretation, analysis, evaluation, reasoning, and problem solving skills required in the natural sciences: Biology, Chemistry, Earth / Space Science (Geology, Astronomy, and Meteorology) and Physics. Cadets will learn best practices, strategies, and approaches for the three categories of ACT Science question formats: data representation, conflicting viewpoints, and research summaries.



## **Biology I**

*Grades 9-12, Post-Graduate*

*1 Credit*

### **Prerequisite: None**

This course provides a working knowledge of life science and basic laboratory skills, including dissection. It introduces major concepts of selected biological topics, including cell chemistry and structure, genetics, evolution, ecology, conservation, population biology, and vertebrate zoology. As a result of this course, cadets can explore and explain concepts of biology and its related applications.

## **Biology II**

*Grades 10-12, Post-Graduate*

*1 Credit*

### **Prerequisites: Biology I (or its equivalent)**

This course is a continuation of Biology I. Emphasis is on biodiversity, bacteria, viruses, protists, fungi, plant systems, and invertebrate zoology. Laboratory investigations are an integral part of this course. Laboratory investigations include microscope observations and dissections to reinforce topics discussed in the classroom. As a result of this course, cadets can explore and explain concepts of biology and its related applications.

## **Chemistry I**

*Grades 10-12, Post-Graduate*

*1 Credit*

### **Prerequisites: Algebra II (or taking it concurrently)**

This course is an introduction to inorganic chemistry and covers the topics of matter and its changes, atomic structure and the quantum model of the atom, as well as periodic law, chemical bonding, nomenclature, chemical reactions and stoichiometry. An emphasis is put on measurement skills, problem solving, and lab work.

## **Chemistry II**

*Grades 10-12, Post-Graduate*

*1 Credit*

### **Prerequisites: Chemistry I or equivalent and a grade of C or higher in Algebra II**

This second year chemistry course begins with an introduction to inorganic chemistry. Topics in this class will include gas laws, solutions, thermochemistry, oxidation and reduction and electrochemistry, acid and bases, and chemical equilibrium. If there is time, an introduction to organic chemistry will be added at the end of the course. More refined lab skills will be developed, as well as analyzing more challenging problems.

## **Earth and Space Science**

*Grades 9-12, Post-Graduate*

*1 Credit*

### **Prerequisite: None**

This course investigates the environment on Earth and in space. Cadets are encouraged to develop a general understanding of the interrelationships of Geology, Astronomy, and Meteorology. Cadets will apply these concepts to present environmental situations and phenomena which they encounter daily.

## **Environmental Science**

*Grades 9-12, Post-Graduate*

*1 Credit*

### **Prerequisite: None**

The course covers the physical, chemical, and biological components of the environment. The course will expose cadets to current issues in conservation, biodiversity, and global climate change. This course will survey some of the many environmental science topics at an introductory level, ultimately considering the sustainability of human activities on the planet.

## **Physical Science**

*Grades 9-10, Post-Graduate*

*1 Credit*

### **Prerequisite: Algebra 1 (or taking it concurrently)**

Cadets will be introduced to nature and development through the history of scientific knowledge and technology. Topics of study include the development of the atomic model, periodic properties of elements, chemical bonding, combining substances (chemical reactions), chemical quantities, mixtures, including solutions, acids, and bases, the behavior of gases, nuclear chemistry, laws of motions, waves, sound and light, electricity, and magnetism.

## **Physics I**

*Grades 10-12, Post-Graduate*

*1 Credit*

### **Prerequisites: Algebra II (or taking it concurrently)**

This course exposes cadets to the fundamental principles and processes of the physical world. Soundly based on the scientific method of observation and experimentation, cadets in this class will participate in observations of physical events, and data collection/analysis. Topics include basic concepts of motion, forces, energy, heat, electricity, magnetism, and the structure of matter and the universe.

## **Physics II**

*Grades 10-12, Post-Graduate*

*1 Credit*

### **Prerequisites: Physics I or equivalent and a grade of C or higher in Algebra II**

This is a second year, advanced physics course. Topics include resistive and capacitive circuits, electromagnetic induction/waves, optics, diffraction, and polarization of light. Many concepts from Physics I will be used in this course such as: position, velocity, acceleration, Newton's laws of motion, work and energy. This course uses algebra, geometry and pre-calculus.

## **Project Lead the Way (PLTW): Engineering Essentials**

*Grades: 9-12, Post-Graduate*

*1 Credit*

### **Prerequisites: None**

Engineering Essentials offers a multidisciplinary approach to teaching and learning foundational concepts of engineering practice. Cadets are provided with opportunities to explore the breadth of engineering career opportunities, and solve engaging and challenging real-world problems.

## **Project Lead the Way (PLTW): Introduction to Engineering Design**

*Grades 10-12, Post-Graduate*

*1 Credit*

### **Prerequisites: Algebra I and Engineering Essentials**

Cadets are introduced to the engineering design process, applying math, science, and engineering standards to identify and design solutions to a variety of real problems. They work both individually and in collaborative teams to develop and document design solutions using engineering notebooks and 3D modeling software.

## **PHYSICAL EDUCATION**

### **Physical Education 7-8**

*Grades 7-8*

*0 Credit*

*AB Schedule (required one semester)*

The physical education course provides the cadets with the opportunity to learn a variety of sports, and sport related movements, as well as many health and fitness concepts. Health topics relate to nutrition, fitness, health, and wellness. Emphasis is placed on active participation and positive social interactions during fitness and sport activities. Throughout the course cadets will learn the basic motor skills: coordination, balance, agility, strength, endurance, and many more. Cadets will learn that the participation in sports can be a vital component of a healthy lifestyle.

### **Health**

*Grades 9-12, Post-Graduate*

*.5 Credit*

*AB Schedule*

This course offers basic information on mental and physical health including but not limited to reproductive health, obesity, eating habits, body image issues, self-esteem, stress, mental health, violence and abuse, illegal drugs, tobacco and drinking. Cadets explore the decision making process and learn how their decisions contribute to their personal health and lifelong wellness. Cadets will also receive CPR training to meet the Missouri state graduation requirement.

### **Strength and Conditioning**

*Grades 10-12, Post-Graduate*

*.5 Credit*

*AB Schedule*

Strength and Conditioning is designed to educate cadets in key areas of health and fitness. Main areas of focus include muscular strength and endurance, cardiovascular endurance, power, flexibility and balance.

### **Physical Education 9-12**

*Grades 9-12*

*.5 Credit*

*AB Schedule*

This course provides cadets with the opportunity to learn a variety of sports, and sport related movements, as well as many health and fitness concepts. Health topics relate to nutrition, fitness, health, and wellness. Emphasis is placed on positive social interactions during fitness and sport activities. Throughout the course cadets will learn basic motor skills: coordination, balance, agility, strength, and endurance.

### **Introduction to Performance Stunts & Combat**

*Grade 9-12, Post-Graduate*

*1 Credit*

#### **Prerequisites: None**

This course can be counted as a fine art, physical education or elective credit.

This class will teach cadets how to carry and use their bodies in movement for stage, film, or any other media. This class will work on coordination, balance, flexibility, strength, intention, spatial awareness, body awareness, alignment and core development. This is a creative exploration in how one can use their body to emote anger, protectiveness, sadness, regret, and peace all through nonverbal exploration. Stunts & Combat will address the entire body, stimulating the nervous

system and increasing range of motion. This class has benefits for all cadets, not just performance cadets. Martial Arts forms will be studied such as Tai Chi. This is an introduction class, but will be a physically challenging. Only cadets in good standing will be approved to take this course.

## **SOCIAL STUDIES DEPARTMENT**

The Social Studies curriculum at Missouri Military Academy is designed to prepare cadets to actively participate in the affairs of their local and national community. By the time Missouri Military Academy cadets graduate, they will understand the history of different regions of the world, and of the cultural, religious, and philosophical traditions of those regions. Cadets will understand the foundations, philosophy, and traditions of the United States. Finally, they will have a thorough knowledge of the history and government of the United States, enabling them to function as citizens of this nation, and as citizens of the world. The curriculum is designed to develop critical thinking, and to foster discussion and debate. All courses offered by the Social Studies Department are aimed at developing research and writing skills.

### **World History 7-8**

*Grades 7-8*

*0 Credit*

World History is a one-year survey course designed to provide an overview of major historical events prior to 500 CE. We will examine the connections between cultures, with emphasis on global interactions, geography, cultural diffusion, political and social developments, science and technology. Other issues covered include war and conflict, economic, religious, intellectual, and artistic achievements. Cadets will learn how to analyze primary and secondary sources, cause and effect relationships, and patterns of change over time.

### **US History 7-8**

*Grades 7-8*

*0 Credit*

A multicultural, cross-disciplinary course designed to provide an accurate general understanding of early United States History. Focus will begin with the cultures of Native Americans, the arrival of Europeans and subsequent attempts to settle on the land, and continuing through to explore the events surrounding the American Civil War.

### **Scottish History, Culture and Traditions 7-8**

*Grades 7-8*

*0 Credit*

In this course, cadets will learn the chronology of historic events that led to the formation of Scotland, explore the geography of Scotland and its place within Great Britain, and learn about and understand the importance of key individuals and developments within Scotland, recognizing their impact worldwide. Cadet will also discover the main cultures and traditions of Scotland, and research family histories and clan affiliations.

### **World History**

*Grades 9-12, Post-Graduate*

*1 Credit*

#### **Prerequisites – Grade 7-8 Social Studies**

World History is a one-year survey course designed to provide an overview of major historical events from the Middle Ages to the present. Cadets will examine the connections between cultures, with emphasis on global interactions, cultural diffusion, political and social developments, science and technology. Other issues covered include war and conflict, economic, religious, intellectual, and artistic achievements. Cadets will learn how to analyze primary and secondary sources, cause and effect relationships, and patterns of change over time.

## **World Geography**

*Grades 9-12, Post-Graduate*

*1 Credit*

### **Prerequisites – Grade 7-8 Social Studies**

Geography, the study of the spatial aspects of human existence, enables cadets to find answers to questions about the world around them. A geographically informed person sees, understands, and appreciates the connections among people, places, and environments. Understanding these connections requires an acute awareness of space, which can be identified in terms of location, distance, direction, pattern, shape, and arrangement. With a strong grasp of geography, cadets will be prepared to understand issues and solve problems in the contemporary world.

## **US History**

*Grades 10-12, Post-Graduate*

*1 Credit*

### **Prerequisites – English II or higher**

This year long course is designed to provide cadets with an overview of United States history from Reconstruction to the present day. Main ideas and topics include Civil War reconstruction, industrialization, westward movement, immigration and urbanization. Other topics include the emergence of the US on the global stage, the Great Depression and WWII, challenges and changes in the US from 1945 to the present day.

## **US Government and Economics**

*Grades 11-12, Post-Graduate*

*1 Credit*

### **Prerequisites – English II or higher, High School US History**

This course is designed to acquaint cadets with the political heritage of the United States and will thoroughly explore the components and purposes of the United States Constitution. Cadets will compare/contrast the government of the United States with that of other political systems. The course content is designed to help cadets develop critical-thinking skills through the understanding, application, and analysis of government institutions and how they relate to their everyday life. Finally, the goal of this course is to encourage cadets to become positive, engaged, and interested citizens. Cadets will explore constitutional democracy, and are required to pass a comprehensive test on the US Constitution and the Missouri State Constitution.

The purpose of the economics section of the course is designed to introduce cadets to the economic principles that guide individual, business, and national decision making. The course content is designed to help cadets develop critical-thinking skills through the understanding, application, and analysis of fundamental economic concepts. Cadets will apply quantitative and mathematical skills to economics. Cadets will also apply economic logic to a variety of real-world and hypothetical situations. Finally, this course will apply and integrate the themes of Economics, History, Geography, Government, and Science/Technology.

## **Triumph Program Courses (College Dual Credit)**

Academically qualified cadets can get an early start on college through MMA's Triumph Program. MMA is proud to partner with William Woods University (WWU) to provide the Triumph Program to our cadets. With a history of education dating back to 1870, WWU distinguishes itself as a cadet-centered and professions-oriented university committed to the values of ethics, self-liberation, and lifelong education of cadets in the world community. To qualify to take these courses, cadets must have a cumulative GPA of 3.0 or above or meet the ACT test requirements. Triumph courses are limited to 11<sup>th</sup> and 12<sup>th</sup> grade cadets.

### **ENG 101 – English Composition I – DC**

#### **Prerequisite: English ACT 19+ or ENG 099**

Cadets learn to summarize and critique the ideas, theories, and arguments found in college level academic and non-academic articles. Basic research skills and critical thinking skills are also components of the course. Furthermore, the cadet will recognize the ways in which plagiarism may be prevented through appropriate and accurate documentation of source material.

**College Credit Hours: 3; High School Credit Hours: 1**

### **ENG 102 – English Composition II –DC**

#### **Prerequisites: ENG101**

Cadets learn how to draft, revise, and edit multiple-source papers that have reflective analysis, sound argumentation, clear organization, well developed paragraphs, and correct sentences. Furthermore, cadets will recognize the ways in which plagiarism may be prevented through appropriate and accurate documentation of source material.

**College Credit Hours: 3; High School Credit Hours: 1**

### **COM 101 – Intro to Speech Communication - DC**

Designed to introduce the cadet to the area of oral communication with exercise covering the various phases.

**College Credit Hours: 3; High School Credit Hours: 1**

### **LDR 301 – Concepts in Leadership - DC**

This course introduces cadets to a variety of leadership concepts and serves as a foundational course for more advanced study in leadership. Topics include but are not limited to motivating others, management communication, training and development, team building and improving leadership qualities within each person.

**College Credit Hours: 3; High School Credit Hours: 1**

### **MAT 118 – College Algebra –DC**

#### **Prerequisite – MAT 099 Basic Algebra or equivalent**

A more rigorous and in-depth treatment of the material of MAT 099. Emphasis on the use of graphing calculators and the utility of algebra or modeling language for solving real-life problems.

**College Credit Hours: 3; High School Credit Hours: 1**

### **MAT 124 – Calculus I – DC**

**Prerequisite – MAT118 or MAT120 or ACT 25 or higher**

An introduction to the concepts of limits, continuity, differentiation of elementary functions, definite and indefinite integrals, and the Fundamental Theorem. Emphasis on use graphing calculators and the utility of mathematics as a problem solving tool. Extensive discussion of applications in natural science, social science, and business.

**College Credit Hours: 5; High School Credit Hours: 1**

**EQU 200 --Introduction to Equine Management and Riding - DC**

This course introduces cadets to benchmark practices in basic horse management and horsemanship skills. It features a split format of lecture and lab (horse handling and riding) components.

Cadets will explore theories and best practices in equine management including restraints, ground handling and training, and basic equine first aid. Coursework in feed and forage selection, storage and feeding practices as well as an introduction to equestrian competition are also part of this course. Cadets will ride in western tack, but be mounted according to their demonstrated riding skills and ability. Opportunities to ride in hunt and dressage tack will be offered to cadets at the end of the course. Tack and equipment are provided by WWU.

**College Credit Hours: 3; High School Credit Hours: 1**



## **Hart Career Center**

The Davis H. Hart Career Center offers a variety of career and technical programs to secondary cadets from eight area schools, including MMA. The programs provide entry level skills and training in technical and service job areas that are in demand in today's economy. Secondary cadets receive high school credit for their career center classes. Many of the classes offer articulated college credits, as well. Certificates are awarded for satisfactory completion of each program. Hart Career Center courses are limited to 11<sup>th</sup> and 12<sup>th</sup> grade cadets only.

### **Agricultural Construction I/II**

Agricultural Construction I is a balanced introduction of woodworking and welding/metal fabrication. Cadets learn to use shop hand and power tools correctly. Cadets will also learn skills needed to make intricate wood projects. Most projects will be small in nature and focus on a variety of methods used in the construction world. Agricultural Construction II cadets will learn how to construct blueprints, build material lists, construction of a bill of sale, and figuring the profit of a project. These units will jump start your year into woodworking, welding, oxy acetylene, plumbing and project fabrication.

### **Auto Mechanics I/II**

*3 Credits*

These courses prepare cadets to meet the challenges of diagnosing today's automobiles. State-of-the-art equipment is provided to prepare cadets to perform the repair tasks involved in the automotive industry.

### **Computer Networking**

*1 Credit*

In computer networking, cadets explore the information technology system and different types of computer related technologies. Courses offered include: Intro to Computer Technology, Computer Repair and Support, and Computer Network Support.

### **Computer Science**

*1 Credit*

Computer programming jobs are growing at two times the national average. By 2020, there will be 1.4 million jobs in information technology science fields and only 400,000 qualified workers. Courses in this area of study include: Exploring Computer Science, AP Computer Science Principles, Programming I, Applied Programming: Video Game Design I & II, and Applied Programming: Robotics I & II.

### **Construction Technology I/II**

*3 Credits*

Construction Technology is for cadets who want to work in construction related occupations. Cadets receive training in multiple aspects of the construction process. Included in this course are hands on experiences, as well as classroom content related to construction project planning and management, trade skills, and safety. Cadets will have the opportunity to earn their OSHA safety certification.

## **Cosmetology I**

*3 Credits*

This course is for cadets who wish to pursue a career in the field of Cosmetology. Cosmetology consists of haircutting, hair coloring, shampooing, styling, arranging hair, manicures, pedicures, hair removal, scalp treatments, chemical texture services, disinfection procedures and many other services. Cadets are required to have a specific number of hours in each of the subjects required by the MO State Board of Cosmetology and Barber Examiners. A school kit is required for each cadet and includes all of the tools and books needed for the course. This kit will be paid for by the cadet.

## **Diesel Mechanics I/II**

*3 Credits*

Ag Diesel Mechanics is a class designed for cadets who are interested in learning and working on agricultural-related equipment. In this course, cadets are prepared to use critical thinking skills to explore basic diesel technology. The program consists of practical knowledge and shop management skills to help cadets master installation, service, assembly, adjustment, repair and operations of various types of farm machinery and tractors. Cadets will also learn how to work with hydraulics, transmissions, electrical systems and air conditioning. In addition, cadets will learn orientation and safety, engine repair, tune-up, and preventative maintenance, transmissions, brakes and diesel electrical systems.

## **Graphic Arts Occupations I/II**

*3 Credits*

In the Graphic Arts program, cadets will learn Adobe design software, including Photoshop, Illustrator, and InDesign. Using this software, cadets will learn to draw and paint on the computer, as well as manipulate photographs. They will work with real world clients to create logos, flyers, posters, brochures, and much more. Additionally, cadets will learn how to do large format inkjet printing, vinyl signs, cutting and mounting, and even t-shirt screen printing.

## **Health Occupations**

*1-2 Credits*

Graduates of the Health Occupations program at Hart Career Center are eligible to obtain CAN and CPR certification. Courses offered include Medical Terminology and Health Sciences.

## **Marketing**

*1-3 credits*

A variety of marketing courses are offered including Fundamentals of Marketing, Advanced Marketing, Sports Marketing, and Cooperative Marketing Education. DECA membership is strongly encouraged of all marketing cadets and offers additional opportunities to participate in marketing-related conferences, field trips and competitions.

## **PLTW – Pathway to Engineering**

*1 Credit*

The Pathway to Engineering program includes Introduction to Engineering Design, Principles of Engineering, Engineering Design and Development, Manufacturing Engineering, and Digital Electronics. This program prepares cadets for future careers as Engineers or Technicians in

engineering related fields. Cadets may choose to become certified users of a 3D drafting program, Autodesk Inventor, at the completion of Introduction to Engineering Design.

### **Welding Technology I/II**

*3 Credits*

Cadets in the welding program are introduced to welding safety, blueprint reading, and welding equipment identification and operation. They then learn industrial welding techniques, and carbon arc and plasma cutting. This class includes American Welding Society code welding and the opportunity for industry-standard AWS welding certification.

## **APPENDIX A. MMA CADET ASSESSMENT PROGRAM AND SCHEDULE 2023-2024**

The purpose of this program is to standardize and codify our approach to using internal and external assessment tools to properly place cadets in the appropriate level courses, assess cadet performance, and take corrective actions as necessary to ensure the curriculum supports achieving our stated learning outcome. This information from the college-readiness test (ACT, SAT and TOEFL Jr) is recorded in Naviance. Teachers can use the data to see how prepared our cadets are to attend a 4-year university.

### **1. IXL**

IXL's Real-Time Diagnostic is an adaptive assessment tool that provides an accurate, up-to-the-minute portrait of each cadet. By answering questions in the Real-Time Diagnostic, cadets can pinpoint their current levels of knowledge in math and language arts (overall and in specific strands), plus their reading level.

### **2. Armed Services Vocational Aptitude Battery (ASVAB)**

ASVAB will be administered in the early part of each semester. Advisors will help cadets understand their results via the EXPLORE program. The results will help cadets reflect on how their interests and skill level can impact their career choices. All cadets' grades 10-12 will take this test. This date will be coordinated with the MEPS testing center in St. Louis and will be scheduled at least annually. Cost: Free

### **2. Preliminary Scholastic Aptitude Test (PSAT)**

PSAT is the preliminary-SAT and it is also the qualifying exam for the National Merit Scholarship (cadets qualify during their junior year). All cadets will take the PSAT in October of their junior year. Results from the test will help cadets see how prepared they are for college and if they are meeting college readiness benchmarks. This test will also help cadets predict how well they would do on the SAT. Cadets and the school receive a copy of the scores, as well as the correct answers. After the test results are returned the booklets are shared, and teachers can use the questions/answers to help cadets correct their mistakes. Cost: \$18

### **3. Pre-ACT (American College Testing)**

Pre-ACT is the practice ACT which will be administered to grade 10 in the fall. Cost: \$16.00

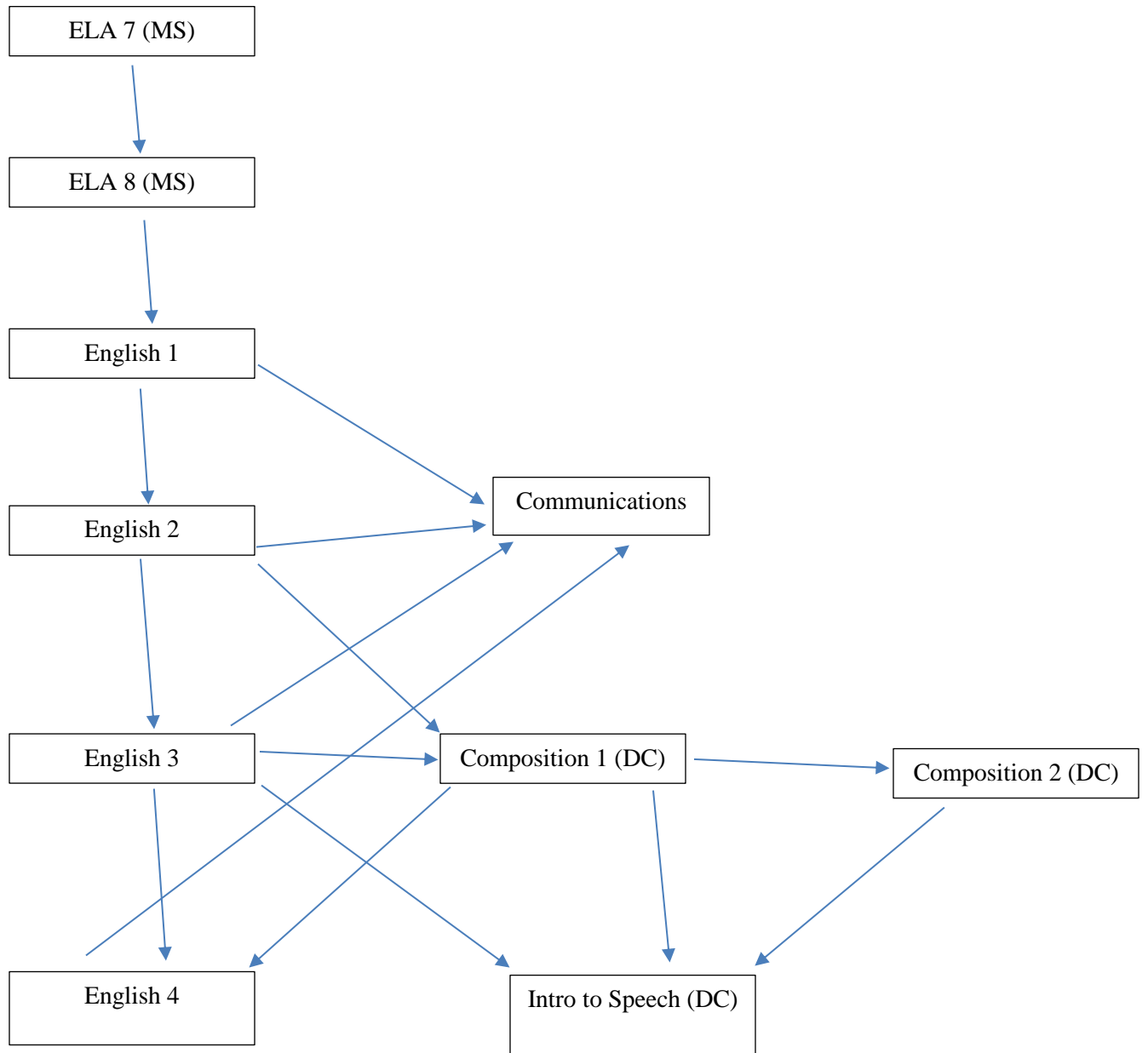
### **4. Duolingo**

Duolingo will be administered to all international cadets upon their arrival at MMA and is used for placement into ELL and English classes.

MMA will provide options for cadets to sign-up to take the following exams that are often required for college admissions: ACT, SAT and TOEFL or Duolingo. The ACT and SAT are offered at local high schools and MMA can provide transportation to those test sites. TOEFL and Duolingo are online tests and MMA can help the cadet with the registration and testing process.

**APPENDIX B. DEPARTMENT FLOWCHARTS**

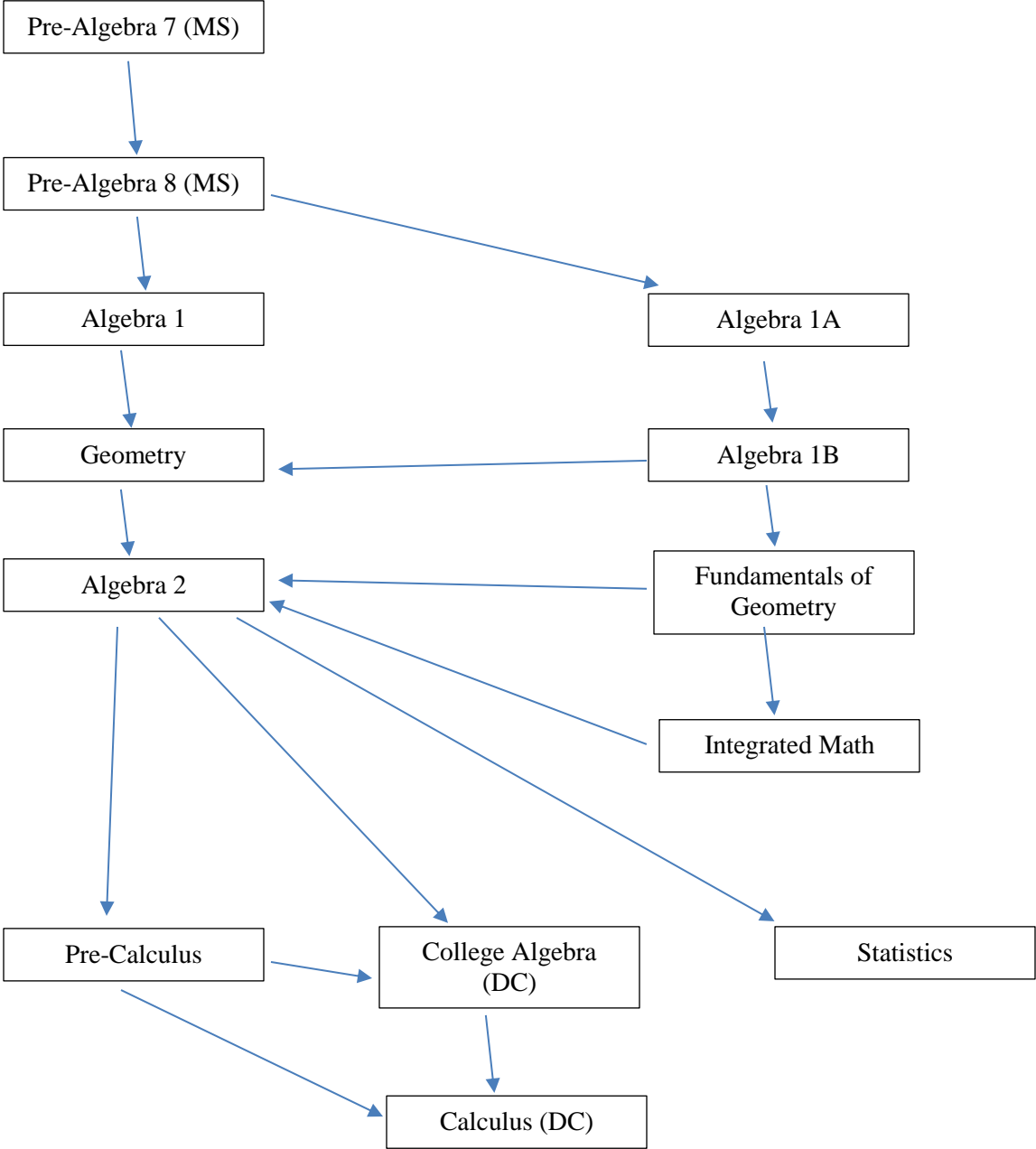
**MMA Course Flowchart – English Department – 4 Credits Required**



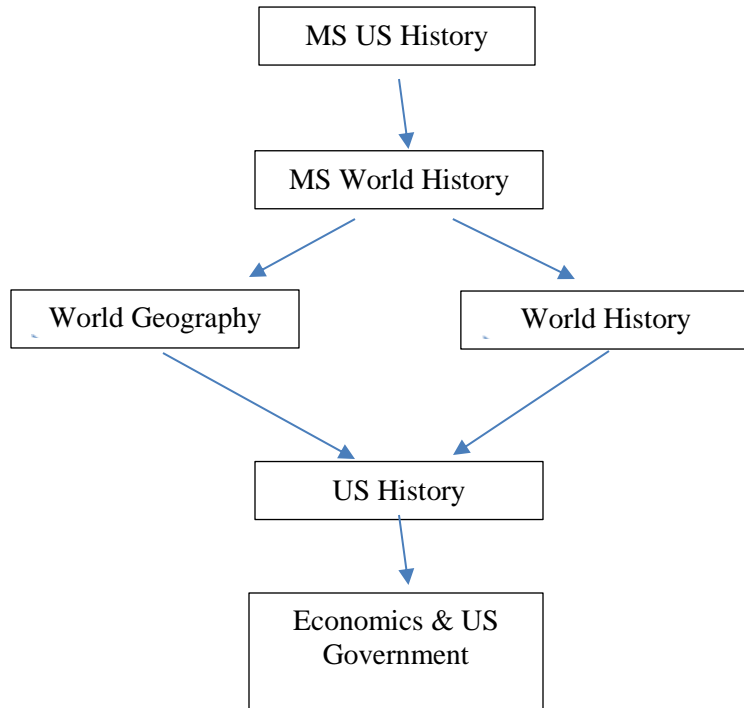
**MMA Course Flowchart – Math Department**

**3 Credits Required (4 strongly recommended)**

(Must complete Algebra 2 or Integrated Math)

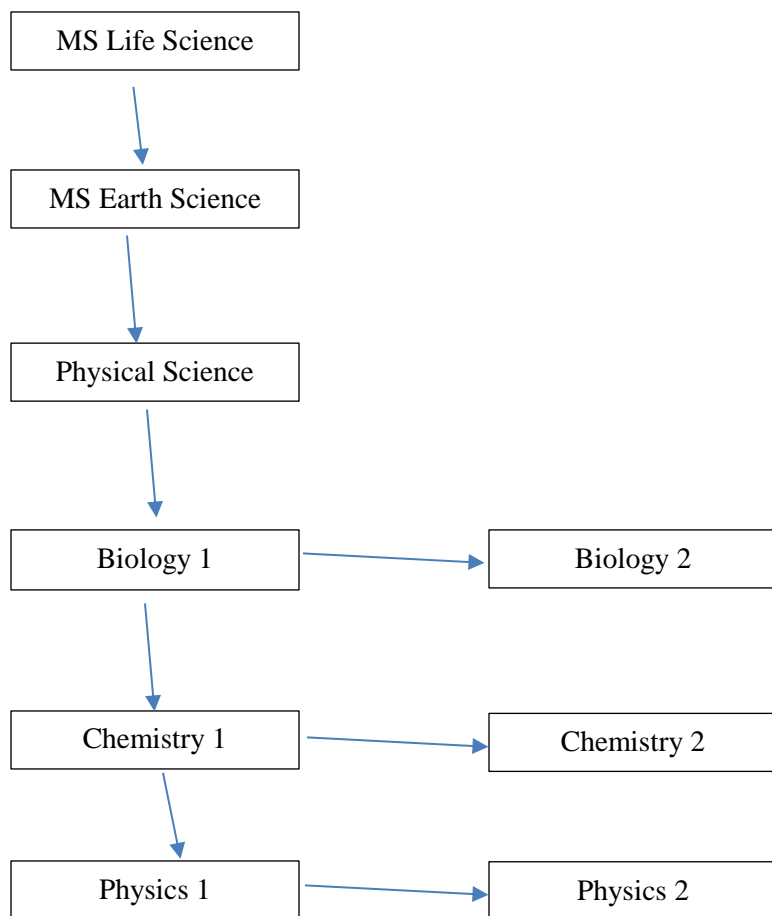


**MMA Course Flowchart – Social Studies Department – 3 Credits Required**



## MMA Course Flowchart – Science Department – 3 Credits Required

For graduation, one credit must include a lab course.



### Science Electives

Earth & Space  
Science

Environmental  
Science



OFFICE OF THE ACADEMIC DEAN



**APPENDIX C.**

**Confirmation of Understanding of the Program of Studies**

Please sign, date and returned to the Assistant Academic Dean indicating that you have read and understand the contents of the Missouri Military Academy *Faculty Handbook* for the school year 2022-2023.

I, \_\_\_\_\_, have read and understand the information in this  
(Print name)

document, and understand the policies and regulations therein. I further understand that this handbook is located on a shared drive of the MMA Network

\_\_\_\_\_  
(Employee signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Department or supervisor signature)