**Gateway STEM High School**

***Learners Today, Leaders Tomorrow!***



**AFJROTC Aerospace Science Studies 100**

**Room 118E**

**Course Syllabus**

**2024-2025**

**INSTRUCTOR: Greg Stephan, MSgt (Ret), USAF**

**Ms Karen Sennie**

**PLANNING PERIOD: 1st Period; 5th period**

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**Karen.sennie@slps.org**

**COURSE FRAMEWORK:**

The AFJROTC curriculum includes Aerospace Science (AS) and Leadership Education (LE), and Wellness components. All students are granted academic credit applicable toward graduation requirements for the successful completion of AFJROTC courses. The Wellness portion is accredited as an approved PE credit towards graduation. Students may apply for college credit after one full year of completion and an overall B average. For college credit information, visit [www.leadershipcredit.info](http://www.leadershipcredit.info).

Aerospace Science 100 is the first year aviation history course for AFJROTC. This course focuses on the development of flight throughout the centuries. It starts with ancient civilizations, then progresses through time to modern day. The emphasis is on civilian and military contributions to aviation; the development, modernization, and transformation of the Air Force; and a brief astronomy and space exploration history. It is interspersed with concise overviews of the principals of flight to include basic aeronautics, aircraft motion and control, flight power, and rockets. Throughout the course, there are readings, videos, hands-on activities, and in-text exercises to guide in the reinforcement of the material.

**LEARNING OUTCOMES:**

By the end of the **Aerospace Science 100** course, students will be able to:

1. Summarize the historical facts and impacts of the early attempts to fly
2. Categorize the major historical contributors to the development of flight
3. Interpret the significance of air power during several key campaigns in our nation’s history
4. Make observations on the contributions of the U.S. Air Force to modern aviation history
5. Assess the key events of space exploration history.

**COURSE OUTLINE:**

**First Semester**

Chapter 1-Exploring Flight

Lesson 1 – Ancient Flight

Lesson 2 – The Early Days of Flight

Lesson 3 – The Wright Brothers Take Off

Lesson 4 – Pioneers of Flight

Chapter 2-Developing Flight

Lesson 1 – Airpower in WWI

Lesson 3 – Early Developments in Commercial Flight

**Second Semester**

Chapter 3-The Evolution of the Early Air Force

Lesson 1 – The Army Air Corps

Lesson 2 – Airpower in WWII

Lesson 3 – Significant Aircraft in WWII

Chapter 5-The US Air Force is Born

Lesson 1 – The Army Air Forces Become the US Air Force

Lesson 2 – Military Aircraft Development after WWII

Lesson 3 – The Role of Airpower from the Korean War to the Vietnam War

Lesson 4 – Other US Air Force Military Operations that Supported National Objectives

Lesson 5 – Global Interventions from 1990

**REQUIRED MATERIALS:**

Textbook-Aerospace Science 100: Milestones in Aviation History

Books will remain in the classroom but can be checked out.

Binders and workbooks (if used) will remain in the classroom (unless making up work).

A charged computer is mandatory as we will be conducting work on line.

Cadets MUST bring paper and pen or pencil to class daily **except** on PT days.

Cadets MUST wear the AFJROTC uniform once a week on assigned the assigned day & PT uniform on the required day. All clothing items will be issued to each student to be successful in AFJROTC  
Objectives and Do Now will be posted on the board every day; make sure you read them!

**Classroom EXPECTATIONS/POLICIES:**

1. Be standing at your assigned seat when the bell rings.
2. Have computer, paper, pencils/pens, books and all needed supplies every day.
3. Keep hands, feet, books, and objects to yourself.
4. No profanity, rude gestures, teasing, or put downs.
5. Follow directions of the Student Discipline Handbook and all school adults unless the request is illegal, immoral, or unsafe.
6. Attached is the policy and contract that each cadet and parent must sign.

**GRADING POLICY/SCALE:**

AFJROTC I is the introductory course for all new cadets. The course consists of three components: Aerospace Science (40%), Leadership Education (40%), and Wellness/Physical Fitness (20%).

Grades from the Aerospace Science portion of the course count 40% of the AFJROTC final grade. The Leadership Education portion of the grade counts 40% of the final grade. The wellness portion of the program counts for the remaining 20% of the final grade.

AFJROTC uniform is required to be worn once a week on the assigned day. This is part of the Leadership curriculum and is incorporated in the 40% of the leadership grade.

**Semester Grade Policy:** **Grading Policy:** Students will follow the grading scale issued by the district which is as follows:

**Grade** **Grading Scale**

A 100 – 90

B 89 – 80

C 79 – 70

D 69 – 60

F 59 and below

Parents may have internet access to their student’s grades and assignments, upon Administrative approval at <https://sis.slps.org/SLPS/Default.aspx>

**ACADEMIC INTEGRITY/ PLAGIARISM:**

Students found to have engaged in academic dishonesty are subject to disciplinary action at the classroom and/or building level.  Students are expected to conduct themselves with honor and honesty by taking responsibility for their learning.

Plagiarism, cheating, or a lapse in academic integrity is defined as...

* 1. Failing to properly cite other people's contributions to your knowledge, even if you have summarized or paraphrased their ideas.
  2. Copying, or allowing anyone else to coy part or all of a homework assignment, paper, or test.
  3. Sharing information about quizzes or tests with current, future, or previous Metro students.
  4. Using materials other than those explicitly allowed by the teacher during an assessment.

Anyone found cheating or collaborating with a cheater on a test, quiz, research paper, essay, book report, etc., will be given a zero (F) for that assignment, and a conference will be set up including the student, a parent, and the principal. The assignment will not be made up for credit, and the zero will be computed into the grade for that class. A notation of the incident will be placed in the student’s permanent folder. This notation will affect recommendations written by the school for you as you apply for colleges and scholarships. Any student caught cheating a second time will be recommended for transfer to an alternate school (e.g. the student’s neighborhood school) for the remainder of his or her high school career. Anyone found copying homework/class work will be given a zero (F) for that assignment which will not be made up for credit, and the zero will be compacted into the grade for that class.  The second occurrence of copying will be treated as the first occurrence of cheating outlined above.  In most instances of cheating, the person using another's work as well as the person providing the work is not of quality.

**MISCELLANEOUS COURSE INFORMATION:**

TEACHER’S WEB LINK HAS CALENDAR, UNIFORM WEAR, RULES, GUIDES and HELPFUL DATA. Go to SLPS.ORG then select Schools, select Gateway HS, then select Teachers; look for my last name.

At the beginning of the year, every cadet will be given a contract that must be read and signed by both the student and parent. This contract illustrates the responsibilities and requirements that are expected during the school year. The contract reads as follows:

Dear Parents/Guardians,

It is with great pleasure that we welcome your son or daughter to the Air Force Junior Reserve Officer Training Program (AFJROTC). Our Mission is to “develop citizens of character dedicated to serving their nation and community.” The objective of AFJROTC is “to educate and train high school cadets in citizenship, promote community service, instill responsibility, character, self-discipline, and provide instruction in air and space fundamentals.” Please be aware AFJROTC is prohibited from attempting to recruit cadets into military service.

Our curriculum consists of 40% Aerospace Science (aviation history, development of flight, travel into space), 40% Leadership/Life Skills (uniform wear, leadership, citizenship), and 20% Physical Education. Wear of the AFJROTC uniform is also a part of the curriculum and proper uniform wear **is** **required once a week on Wednesday or Thursday and it is *not optional***. Proper wear of the uniform is also used as a learning tool to demonstrate the ability to follow basic instructions, comply with standards, and instill integrity. Uniform wear also helps to establish a mutual commitment between each student and the AFJROTC team.

**DRESS AND APPEARANCE:** AFJROTC standards, including uniform wear, must be met while in uniform (standards can be found on our web page and/or in the cadet handbook**). Failure to wear the uniform (or wear it properly) three times in one quarter may result in an overall grade of ‘F’ for that quarter**. If absent on uniform day, the student will wear the uniform as a make up the first day back to school. The student must present themselves for an inspection to the instructor or the designated cadet for a grade. Failure to wear the uniform on the designated day or the following day will result in a “0”.

Students will be issued physical training uniform and will be required to wear it on designated Fridays. Failure to wear the uniform and appropriate shoes will result in a loss of 50%; failure to participate in activities will result in a loss of 50%. To receive credit for PE, you must pass the Wellness portion of the curriculum.

**After the initial uniform issue, the UNIFORM SERVICE COAT AND PANTS MUST BE DRY CLEANED.** Only the blue shirt can be washed; the jacket (suit coat/Class A) and pants must be dry cleaned. Cleaning instructions are located on the clothing tags inside the pants and coat. **You will be charged for lost or damaged uniform items.**

**Gentlemen:** While wearing the uniform, young men's hair will have a tapered appearance on side and back. The bulk for men's hair will not exceed 2.5 inches***.*** No braids, dreds, mohawks, designs, or other fads (including unnatural colors). Sideburns must be neatly trimmed and tapered, straight, even and horizontal to the ground. Mustaches are authorized if they are trimmed at the corners of the mouth**, but *no other facial hair*** is allowed***.*** NO EARRINGS (or nose rings) may be worn while in uniform.

**Ladies:** Hair colors must be natural (black, brown, blonde, natural red). Ladies hair can’t exceed ***4*** inches in bulk when styled on uniform days. No ornaments**,** bows**,** etc**.** Barrettes, headbands (no larger than 2 inch), bobby pins, and rubber bands must be as close to the hair color as possible. No other colors are permitted. Earrings must be small, conservative, spherical; gold, silver, diamond, or pearl; may not extend below bottom of earlobe (except for clip in clip-on’s); must be worn in a pair; worn only in the lower earlobe. Nose rings or other facial piercings may NOT be worn while in uniform.

**CADET FEE:** Each year in the program cadets will be charged a **$20.00** cadet fee. This fee must be paid within the **first 30 days of school** and goes towards mass unit activities such as field day(s) and to reduce the cost our annual military (formal) ball. We also use these funds for grooming items, body sprays, and miscellaneous items the cadets may need throughout the school year. If there are extenuating circumstances delaying this payment, please contact the AFJROTC staff. The cadet fee is non-refundable should your cadet not successfully finish the entire year, whether removal is voluntary or involuntary.

**CODE OF CONDUCT:** The Gateway STEM AFJROTC program is in strict compliance with the SLPS Code of Conduct and takes disciplinary matters seriously. Type I, II and III behavioral problems will be dealt with IAW school/district policies. A copy of the SLPS Code of Conduct is located within each AFJROTC classroom.

**AFJROTC BENEFITS:** Missouri high school Physical Education (P.E.) credit, Practical Art credit, General Elective credit, and college credit based on years they complete the JROTC curriculum in good standing. And, if the cadet chooses to join the military, they may enter the service one to two pay grades higher than the normal recruit. If your child chooses a military career path, we can assist them along the way, and we also offer career education and guidance, regardless of the career path chosen by our cadets.

**MEDIA RELEASE:** There are times when we perform parades, color guard events, and other community service whereby your cadet may be in a photo. By signing below you agree to give us permission for those photos/images and name to be used for US Air Force advertising purposes to include on social and other media.

If you have any questions about AFJROTC, please feel free to give us a call, 314-776-3300, or go to the Gateway STEM High School web page (listed under schools on the SLPSweb page); select JROTC under Engineering, or you can select teachers, then select Greg Stephan.

***\*\*PLEASE SIGN BELOW***\*\*

**UNDERSTANDING**: By signing this you are saying you are aware that consistent or deliberate uniform violations will be grounds to remove the cadet from JROTC. The Senior Aerospace Science Instructor is the final authority for all dismissals. Belonging to the Cadet Corps is a privilege, not a right.

Again, welcome to AFJROTC!

Respectfully,

***Gateway STEM AFJROTC Staff***