



PLATTSMOUTH HIGH SCHOOL AFJROTC COURSE SYLLABUS AEROSPACE SCIENCE I



Course Title: Aerospace Science I
NDE Course Number: 230101
Instructor: CMSgt Bruce Price
Academy: STEAM

I. Mission Statements

District Mission: Working in partnership to ensure Academic achievement, responsible Behavior and Civic engagement.

Plattsmouth High School Mission: To challenge all students to reach their full potential, to become lifelong learners, responsible citizens, and productive members of society. Plattsmouth students and staff will be **Positive, Respectful, Intentional, Determined, and Engaged.**

AFJROTC Mission, Goals, and Objectives: The **mission** of the Plattsmouth High School Air Force Junior Reserve Officer Training Corps (AFJROTC), NE-951, is to develop citizens of character dedicated to serving their nation and community.

The **goals** of the program are to instill values of citizenship, service to the United States, personal responsibility, and a sense of accomplishment in high school students.

The **objectives** of AFJROTC are to educate and train high school cadets in citizenship; promote community service; instill responsibility, character, and self-discipline; and provide instruction in air and space fundamentals.

II. Course Description/Objectives

Aerospace Science I is the introductory course for new cadets. The curriculum has three focal points: Leadership Education, Aerospace Science, and Wellness.

1. Leadership Education (40%). LE-100: Traditions, Wellness, and Foundations of Citizenship

- (1) Know the importance of AFJROTC history, mission, purpose, goals and objectives.
- (2) Know military traditions and importance of maintaining standards of dress and appearance.
- (3) Know importance of attitude, discipline, respect, and why values and ethics are important.
- (4) Know the importance of individual self control, common courtesies and etiquette.
- (5) Know that an effective stress management program improves the quality of life.
- (6) Know why courtesies are rendered to the U.S. flag and the National Anthem.
- (7) Know why it is important to be a good citizen and be familiar with different forms of government.
- (8) Know the importance of drill and ceremony, apply concepts of basic drill positions and movements.

2. Aerospace Science (40%). AS-100: Milestones in Aviation History

- (1). Know the historical facts and impacts of the early attempts to fly.
- (2). Know the major historical contributors to the development of flight.
- (3). Know the contributions of the U.S. Air Force to modern aviation history.
- (4). Know the key events of space exploration history.

3. Wellness (20%)

- (1). Encourage cadets to lead active, healthy lifestyles beyond program requirements and into their adult lives.
- (2). Participate in individual and group physical fitness activities one class day per week, usually Friday. Cadets are required to dress for physical fitness activities, including the Air Force PT t-shirt (provided to all cadets).

III. Textbooks and Reference Materials

Leadership Education 100: Traditions, Wellness, and Foundations of Citizenship (2015)

Aerospace Science 100: Milestones in Aviation History (2016)

Plattsmouth High School AFJROTC Cadet Guide

IV. Course Standards: *(List all standards addressed in your course. If all standards are addressed, state that. For example: NE CCR ELA 9th grade standards. If not all the standards are addressed, then list the numbers of those that are addressed. For example, MA 11.3.2.a)*

V. Career Readiness Standards (CRS) *(All courses can address these standards)*

1. Applies appropriate academic and technical skills
2. Communicates effectively and appropriately
3. Contributes to employer and community success
4. Makes sense of problems and perseveres in solving them
5. Uses critical thinking
6. Demonstrates innovation and creativity
7. Models ethical leadership and effective management
8. Works productively in teams and demonstrates cultural competency
9. Utilizes technology
10. Manages personal career development
11. Attends to personal and financial well-being

VI. Assessment and Support

Grading

Grading procedures used in AFJROTC courses are designed to provide students, parents and the instructors a framework for accurately reporting student achievement. Students will be given reassessment opportunities when they are not proficient or fail an assessment. Students will be held accountable for completing their work. If a student chooses not to complete an assessment by a given deadline, near the end of the grading term, a zero will be earned. The term grade for AFJROTC courses is calculated using the results of academic achievement and compliance (summative assessments) and academic practice (formative assessments).

Academic Practice (Formative Assessments) – (Not more than 30% of the final grade). This grade is meant to communicate how a student is doing during the learning process (class work, homework, rough drafts, quizzes and wellness participation).

Academic Achievement (Summative Assessments) – (Not less than 70% of the final grade.) This grade reflects what a student knows and is able to do after adequate study (tests, exams, assignments, projects, and presentations) and the level of success a student achieves in meeting the compliance and uniform wear requirements of being a cadet in the AFJROTC program (wearing the uniform, PHS AFJROTC Cadet Guide). If a student is not proficient on an assessment they will be reassessed after doing self-assessment and re-teaching.

Uniform Day

Monday or Tuesday (depending on block schedule) is designated as the uniform day for all Plattsburgh High School AFJROTC cadets. The uniform will be worn during the entire school day and to and from school. **The course instructor must approve any exceptions to this requirement in advance.** Cadets will wear appropriate physical training attire to include the issued AF grey PT shirt on AFJROTC Wellness days (usually every Friday).

Make-up Course Work

Cadets are responsible for checking with the course instructor to determine what make-up work is required following a period of absence. They are allowed two days to complete make-up work for every day they are excused from school. Previously announced projects and tests will be turned in or taken upon the student’s return to school.

VII. Course Outline:

Approximate Dates:	Subjects:
Aug - Sep	LE Chapter 1, drill and wellness
Oct	AS Chapters 1-2, wellness
Nov	LE Chapter 2, drill and wellness
Dec	AS Chapter 3, wellness
Jan	LE Chapters 3-4, drill and wellness
Feb - Mar	AS Chapters 4-5, wellness
Mar - Apr	LE Chapter 5, drill and wellness
May	AS Chapter 6, wellness

VIII. Course Projects -Including Project-based Learning activity

- A. Wright Flyer: build web-based plane following Wright principles, fly via simulator.
- B. SERE: prepare & participate in Survival, Evasion, Resistance & Escape at Camp Ashland.
- D. KC-135 Flight: participate in a Nebraska ANG KC-135 flight.
- E. Offutt RC-135 Simulator: perform hands-on flying in the flight simulator at Offutt AFB

IX. Career Connections

A. Academy: STEAM

B. Academy Mission: STEAM emphasizes academic rigor with visual learning in science, engineering, aeronautics, and math.

C. Academy Alignment

This course will provide learning in context to students in the STEAM Academy at PHS. Instructional resources and assignments will be customized to apply and allow students to demonstrate career content information while learning the course content needed to be successful.

Course Name:	How course content is aligned for students interested in the following career clusters
Aerospace Science I	
Leadership Education 100: Traditions, Wellness, and Foundations of Citizenship	Relates to principles of citizenship providing necessary life skills for young adults.
Aerospace Science 100: Milestones in Aviation History	Relates to the study of aerospace engineering, aerospace history, and rocketry/space exploration.

X. Behavior Expectations and Consequences

Cadets are expected to be on time and prepared for class every day. They should be in the AFJROTC classroom when the final bell rings and bring a pen or pencil, paper, their laptop computer, and Cadet Guide. Standards of conduct and behavior for AFJROTC cadets are described in the Plattsmouth High School Student Handbook, Plattsmouth High School AFJROTC Cadet Guide and the NE-951 Cadet Contract/Agreement.