

## 2015-2016 Air Force JROTC Syllabus

**Course Name:** "Exploring Space: The High Frontier" and "Principles of Management"

**Credit Hours:** One

**Instructors:** Colonel Roberts and Chief Price

1. **Program Orientation:** Much more than just a high school science course. Aerospace Science (Air Force Junior ROTC program) places strong emphasis on citizenship, values, self-discipline, team work, and a strong work ethic. Helping to make the program unique is its identification with the US Air Force. Aerospace Science brings students together as a cohesive cadet group and is the basis for unique fellowship and esprit de corps not experienced in most high school courses. I must emphasize that the cadet corps (all the JROTC classes collectively) will be run **by and for the cadets** with the guidance of the Aerospace Science Instructors. The cadet corps and the overall AFJROTC program will be what you, the cadets, make of it.

2. **AFJROTC Objectives:** Participation in AFJROTC in no way obligates you for future military service. The instructors are **NOT** recruiters but rather retired military members who are full time employees of the Alachua County School System. We will not try to enlist any of you into the military, but stand ready to help you in the enlistment process if and only if you so desire. We will expose you to life in the military and the opportunities available in the aerospace community and then leave the decision up to you. To achieve the AFJROTC objectives, we expect you to develop over the course of the year:

- (1) An appreciation of the basic elements and requirements for US national security.
- (2) Respect for and understanding of the need for constituted authority in a democratic society.
- (3) A sense of patriotism & understanding of the citizens' need/obligation to contribute to national security
- (4) Habits of orderliness and precision. Always doing your best in every task.
- (5) A high degree of personal honor, self-reliance, self-discipline, and leadership.
- (6) A broad based knowledge of the aerospace community and fundamental aerospace doctrine.
- (7) A basic knowledge of military skills to include drill, uniform wear, etc.
- (8) A knowledge of and appreciation for the traditions of the United States Air Force.
- (9) An interest in completing high school & pursuing higher educational goals to better prepare you for life.
- (10) An acquaintance with career opportunities available from the US military services.

### 3. Course Objectives:

- (1) Know the history of astronomy and the specific characteristics of Earth, Moon, solar system, and planets.
- (2) Comprehend the big picture of space exploration, including the history of spaceflight, organizations doing work in space, and overall space environment.
- (3) Comprehend the importance of entering space and the characteristics of manned and unmanned spaceflight and how humans are affected during spaceflight.
- (4) Comprehend the key concepts of getting from the surface of the Earth into Earth orbit and to other planets and back again.
- (5) Comprehend how spacecraft, rockets, and launch vehicles are designed and built.
- (6) Know the history and the importance of management.
- (7) Know the techniques and skills involved in planning and decision making.
- (8) Know the importance of managing change, stress, and innovation.
- (9) Know the key elements of individual and group behavior, the importance of the communication process and the characteristics of a good leader.

4. **Course Structure:** AFJROTC is a course of study in aerospace science and leadership training. It is designed as a four year program; however, you may take one, two, three, or four years of the course elective/science credit towards graduation. We recommend that you start as a freshman; although, you may enroll at any point in your high school career. There are three major areas of study in each year's course; academics, military leadership training and President's Physical Fitness Program (PPF). You will normally attend academic classes on Tuesday and Thursday. Leadership training classes are normally scheduled on Monday and Wednesday. PPF or Wellness will normally be conducted on Friday. Except for special occasions, you will be required to wear the Air Force uniform every Wednesday. Assignments and tests are scheduled well in advance and information on academic assignments,

as well as co-curricular activities will be provided to you.

### 5. Grading Procedures:

- a. Grades for AFJROTC are aligned with SBAC standards:
  - A – 90% and above
  - B – 80% - 89%
  - C – 70% - 79%
  - D – 60% - 69%
  - F – 59% and below
- b. Evaluation will be as follows:

Academics (Exams/Class work/ Projects)	-40%
Leadership (Uniform/Leadership Labs)	-40%
Wellness Education	-20%

**6. Expectations:** This course will place special emphasis on self-discipline and self-reliance. Some of you may think we are too strict but *try it, I think you will like it*. In this regard, we cannot make it too clear, you will have to meet certain standards of performance and discipline in order to be successful in this program.

- a. The academic phase of the program includes portions dealing with civics, science, history, and social studies. The leadership phase has less of an academic focus but still requires a high degree of self-discipline and teamwork.
- b. We, the AFJROTC instructors believe strongly in group and individual promptness, preparedness, attendance, participation, self-control, respect, and courtesy. Please make every effort to give these areas your utmost attention. As an example of promptness, you will be marked tardy if you are not by your assigned seat when your flight commander calls the flight to attention at the beginning of the class. When tardy is unexcused, you lose privileges and academic points which could adversely affect your overall JROTC grade.
- c. Behavior and grooming standards will be strictly enforced. Like active duty service members, you will wear a regulation Air Force uniform and be required to maintain the same grooming standards. The pride you take in being *the best that you can be will* greatly enhance your self-respect and promote better spirit within this unit. These standards will apply equally to all. Failure to meet these standards will hurt your course grade and if consistently ignored could result in your removal from the program. For first year students, don't panic, we will give you some time to learn the standards that are expected of you.

**7. Core Credit:** The school board has authorized substitution of core credit for successful completion of two years of Aerospace Science. Cadets that are authorized to substitute Aerospace Science credits for one credit of HOPE/Physical Education and one credit of Performing Arts. Additional AFJROTC courses beyond two years, will count as an elective.

**8. Program Benefits:** The potential benefits to you from AFJROTC are almost limitless. They include:

- a. Individual and group recognition in the form of medals and ribbons for outstanding performance.
- b. Upon graduation, possible entry into the military as an E-3 rather than E-1, with the accompanying increased pay and responsibilities, if you successfully complete at least 3 years of Junior ROTC.
- c. Improved college scholarship opportunities.
- d. Improved chances to attend military service academies provided you meet basic requirements for entry
- e. A chance to develop your leadership skills in real life situations by planning/directing the activities of potentially more than 100 cadets. Additionally, you can participate in a BHS organization that is totally dedicated to helping its member, the school, community and the nation.
- f. The chance to participate, on a voluntary basis, in numerous AFJROTC, co-curricular activities, such as, field trips to military and civilian facilities; formal military social events such as the Annual Military Ball, Semester Parades, Awards Ceremony; precision military drill teams/color guards; Kitty Hawk Air Society (a national honor society); and service projects throughout the school and community.

**9. Academic Schedule:** We will be using “Exploring Space,” “Principles of Management,” and “Drill and Ceremonies” texts. The following lists the major areas of study that we will cover this year.

## **EXPLORING SPACE**

- Ch 1 History of Astronomy
- Ch 2 The Earth and Moon
- Ch 3 The Sun and the Solar System
- Ch 4 Deep Space
- Ch 5 Exploring, Living & Working in Space
- Ch 6 Space Programs
- Ch 7 The Space Shuttle
- Ch 8 Space Stations and Beyond
- Ch 9 The Unmanned Mission of Space Probes
- Ch 10 Orbits and Trajectories
- Ch 11 Rocket and Launch Vehicles
- Ch 12 Robotics in Space
- Ch 13 Commercial Use of Space

## **PRINCIPLES OF MANAGEMENT**

### UNIT 1 – Introduction to Management

- Ch 1 Managers and Management
- Ch 2 The History of Contemporary Management
- Ch 3 The Management Environment

### UNIT 2 – Planning

- Ch 4 Foundations of Planning
- Ch 5 Foundations of Decision-Making

### UNIT 3 – Organizing

- Ch 6 Managing Change, Stress, and Innovation

### UNIT 4 – Leading

- Ch 7 Foundations of Individual & Group Behavior
- Ch 8 Understanding Work Teams
- Ch 9 Communication and Interpersonal Skills
- Ch 10 Leadership and Trust

## **DRILL & CEREMONIES**

- Ch 1 Customs and Courtesies
- Ch 2 Flag Honors
- Ch 3 Introduction to Drill and Ceremonies
- Ch 4 Drill Positions and Movements
- Ch 5 Drill of the Flight
- Ch 6 Marching Movements
- Ch 7 Drill of the Squadron