**AIR FORCE JUNIOR ROTC (TX-031)**

**COURSE SYLLABUS**

**AY 2023-2024**

**AFJROTC (High School)**

**COURSE NAME: AFJROTC (High School)**

The Mission of Air Force JROTC is to develop citizens of character dedicated to serving their nation and

community.

**INSTRUCTORS:** David T. Gray, Major, USAF (Ret) PHONE: 682-867-9285

Jose C. Rubio, CMSgt, USAF (Ret) 682-867-7145

Gregory W. Keels, SMSgt, USAF (Ret) 682-867-9286

Jivaro J. Johnson, SMSgt, USAF (Ret) 682-867-7147

**CLASS LOCATION:** Ferguson Education Center, West Side Temporary Bldgs ROTC Classrooms

**OFFICE:** TX-031 Ferguson Education Center

600 S.E. Green Oaks Blvd.

Arlington, TX 76018

**CREDIT HOURS:** 1 Physical Education for the entire year (must complete both semesters)

**REQUIRED TEXT AND MATERIALS**: **Aerospace Science 100: Milestones in Aviation History**

Unit 1: Exploring Space

Unit 2: Developing Flight

Unit 3: The Evolution of the Early Air Force

Unit 4: Commercial and General Aviation Take Off

**Leadership Education I00: Traditions, Wellness, Citizenship**

Unit 1: Introduction to JROTC Programs

Unit 2: Personal Behavior

Unit 3: Be Health Smart

Unit 4: Making Smart, Drug-Free Decisions

Cadet Guide

**Aerospace Science 200: Science of Flight, (Gateway/New Horizons)**

Chapter 1: How Airplanes Fly

Chapter 2: Working Through Flight Conditions

Chapter 3: Flight and the Human Body

Chapter 4: Flying from Here to There

**Leadership Education 200: Communication, Awareness, and Leadership**

Chapter 1: Learning and Communication

Chapter 2: Communicating Effectively Chapter 3: Understanding Your Attitude

Chapter 4: Understanding Your Actions

Cadet Guide

**Aerospace Science 300: Exploring Space: The High Frontier**

Chapter 1: The History of Astronomy

Chapter 2: The Solar System

Chapter 3: Space Exploration

Chapter 4: Space Programs

**Leadership Education 300: Life Skills and Career Opportunities**

Chapter 1: Charting Your Financial Course

Chapter 2: Managing Your Resources

Chapter 3: Career Opportunities

Chapter 4: Aiming Towards a College Degree

Cadet Guide

**Leadership Education 400: Principals of Management**

Unit 1: Introduction to Management

Unit 2: Project Management

Unit 3: Planning: Laying the Foundation

Unit 4: Decision Making- Choosing Wisely

Cadet Guide

**TEXTS:** The Science of Flight (A Gateway to New Horizons), Leadership Education 400: Principles of

Management, Drill and Ceremony Air Force Instruction 36-2203 along with supplemental DVDs and

guides and Air Force Tradition, Cadet Guide.

**COURSE DESCRIPTION/COURSE OBJECTIVES:**

**AS 100: Aerospace Science: Milestones in Aviation History:** This is the recommended first AS

course for all new cadets. Aerospace Science 100 portion is an aviation history course focusing on the development of flight throughout the centuries. The emphasis is on civilian and military contributions to aviation; the development, modernization, and transformation of the Air Force; and a brief astronomical and space exploration history. It is interspersed with concise overviews of the principles 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 and student workbook exercises to guide in the reinforcement of the materials.

**The course objectives are:**

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.

**AS 200: The Science of Flight: A Gateway to New Horizons:**

The Science of Flight: A Gateway to New Horizons is an introductory course and customized textbook that focuses on how airplanes fly, how weather conditions affect flight, flight and the human body, and flight navigation. The course is designed to complement materials taught in math, physics, and other science-related courses and is aligned with the National Science Education Standards, the Math Standards and Expectations, and ISTE National Educational Technology Standards for Students.

In this course, every lesson includes a “Quick Write” and a short story related to the lesson; a “Learn

About” that tells students what they’ll learn from the lesson; a list of vocabulary words in the lesson;

“Wing Tips” that highlight specific and interesting facts; and many biographies and profiles. Each lesson closes with “Checkpoints” that will allow students to review what they have learned. An “Applying Your

Learning” section at the end of each lesson presents discussion questions that will give them a chance to

use what they have learned and provides another way to reinforce their understanding of the lesson’s

content. The text has four chapters, each of which contains a number of lessons.

The course objectives are:

1. Analyze the elements of flight.

2. Evaluate how atmospheric conditions affect flight.

3. Evaluate how flight affects the human body.

4. Analyze flight navigation and the purpose of aerial navigation aids.

**AS 300: Exploring Space: The High Frontier:**

This is a science course that includes the latest information available in space science and space exploration. The course begins with the study of the space environment from the earliest days of interest in astronomy and early ideas of the heavens, through the Renaissance, and on into modern astronomy. It provides an in-depth study of the Earth, Sun, stars, Moon, and solar system, including the terrestrial and the outer planets. It discusses issues

critical to travel in the upper atmosphere such as orbits and trajectories unmanned satellites, and space

probes. It investigates the importance of entering space and discusses manned and unmanned space

flights, focusing on concepts surrounding spaceflight, space vehicles, launch systems, and space

missions. The section on manned spaceflight focuses on the Space Shuttle, space stations and beyond,

covering milestones in the endeavor to land on the Moon and to safely orbit humans and crafts for

temporary and prolonged periods. The course covers the human aspect of spaceflight, focusing on the

human experience in space. It also examines the latest advances in space technology, including robotics

in space, the Mars Rover, and commercial uses of space.

**The course objectives are:**

1. Know the history of astronomy and the specific characteristics of the Earth, Moon, solar system, and

the planets.

2. Comprehend the big picture of space exploration, including the history of spaceflight, organizations

doing work in space, and the overall space environment.

3. Comprehend the importance of entering space, characteristics of manned and unmanned spaceflight,

and how humans are affected during spaceflight.

4. Comprehend the key concepts for 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. Comprehend the latest advances in space technology.

**AS 400: Management of the Cadet Corps:**

The cadets should manage the entire corps during their

fourth year in the Air Force Junior ROTC program. This hands-on experience affords cadets the

opportunity to put theories of previous leadership courses into practice. Planning, organizing,

coordinating, directing, controlling, and decision-making will be done by cadets. They will put into

practice their communication, decision-making, personal-interaction, managerial, and organizational

skills. Instructors should keep in mind that since there is no textbook for this course, the course syllabus

will be structured so that cadets achieve course objectives by completing core management activities.

**The course objectives are:**

1. Apply theories and techniques learned in previous leadership courses.

2. Analyze how to develop leadership and management competency through participation.

3. Analyze strengthened organizational skills through active incorporation.

4. Evaluate how to develop confidence in ability by exercising decision-making skills.

5. Evaluate Air Force standards, discipline, and conduct.

**Leadership Education 100: Traditions, Wellness, and Foundations of Citizenship:**

LE 100 is the component of JROTC leadership education. It is intended for students who are entering the

AFJROTC program and beginning their high school studies. It will introduce cadets to history,

organization, mission, traditions, goals, and objectives of JROTC for all services. It introduces key military

customs and courtesies, how to project a positive attitude, and examine the principles of ethical and

moral behavior. It provides strategies for effective note taking and study skills for academic success.

Lessons will cover how to be emotionally, mentally, and physically healthy. Avoiding and preventing

violence in today’s society, will also be covered. How to recognize types of bullying and how to advocate

for prevention of this type of behavior will also be covered. It will cover healthy living, physical fitness,

and how to make safe, drug-free, and responsible decisions. This textbook will also examine the

negative effects of air and water pollution, and how to help keep the environment safe. Cadets will be

introduced to civics and our national government, including a historical understanding of the American

flag and other important national symbols. The final chapter will also cover how the US Constitution

protects our rights and freedoms as American citizens.

**Course Outcomes:**

1. Analyze the heritage, organization, and tradition of service programs.

2. Analyze the benefits of positive personal behavior.

3. Evaluate healthy living through physical activity and good nutrition.

4. Apply safe, drug-free decisions.

5. Analyze the importance of citizenship in the United States.

**Leadership Education 200: Communication, Awareness, and Leadership Second Edition (2016):**

Leadership Education 200 stresses communications skills and cadet corps activities. Much information is

provided on communicating effectively, understanding groups and teams, preparing for leadership,

solving conflicts and problems, and personal development. Written reports and speeches compliment the academic materials. Cadet corps activities include holding positions of greater responsibility in the

planning and execution of corps projects.

**The course outcomes are:**

After successfully completing the Leadership Education 200: Communication, Awareness, and Leadership

course the student will:

1. Apply the key factors in communication and critical thinking.

2. Apply the elements of effective writing and public speaking.

3. Analyze the importance of attitude in daily life.

4. Evaluate the ways in which personality and behavior affect relationships with others.

5. Analyze the foundation for an effective team.

6. Apply effective problem-solving and consensus-building methods.

7. Analyze the Air Force leadership model.

8. Evaluate effective leadership and followership.

**Leadership Education 300: Life Skills and Career Opportunities:**

Life Skills and Career Opportunities, Second Edition provides an essential component of leadership education for today’s high school students. This course is designed to prepare students for life after high school in the high-tech, globally oriented, and diverse workplace of the 21st century. Students will learn how to become a more confident financial planner and to save, invest, and spend money wisely, as well as how to avoid the credit trap. They will learn about real-life issues such as understanding contracts, leases, warranties, legal notices, personal bills, practical and money-saving strategies for grocery shopping, apartment selection, and life with roommates.

The Holland Interest Inventory and other self-assessments will help them to reveal their attitudes, aptitudes, and personal skills. This self-understanding will allow them to explore career paths and understand requirements that they will need to be successful at work and in life.

**Course Outcomes:**

1. Analyze the elements of successful financial management skills.

2. Create a plan to safeguard personal resources.

3. Analyze the different ways of pursuing a career path.

4. Analyze the requirements for applying to a college or university.

5. Analyze positive and negative impact of college life in meeting career goals.

6. Evaluate the essential process for successfully pursuing desired career or job.

7. Evaluate the benefits of working for the Federal Government.

8. Create a plan for successful career development.

**Leadership Education 400: Principles of Management:**

This course provides exposure to the fundamentals of management. The text contains many leadership topics that will benefit students as well as provide them with some of the necessary skills needed to put into practice what they have learned during their time in AFJROTC. We are confident this course, coupled with what cadets have already learned during their time in AFJROTC, will equip them with the qualities needed to serve in

leadership positions within the corps. Throughout the text are many ethical dilemmas, case studies, and

role play activities built into the lessons. These activities are based on real life experiences and will allow students the opportunity to practice what they learn by getting involved in discussions and expressing

their opinions.

**Course Objectives:**

1. Know the history and the importance of management.

2. Know the techniques and skills involved in planning and decision making.

3. Know the importance of managing change, stress, and innovation.

4. Know the key elements of individual and group behavior, the importance of the communication

process, and the characteristics of a good leader.

**Leadership Education 500: Drill and Ceremonies:**

The Drill and Ceremonies course provides an in-depth introduction to drill and ceremonies. The course concentrates on the elements of military drill, and describes individual and group precision movements, procedures for saluting, drill, ceremonies, reviews, parades, and development of the command voice. Students are provided detailed instruction on ceremonial performances and protocol for civilian and military events and have the opportunity to personally learn drill. Though each class will follow an established lesson plan, most of the work is to be hands-on. Instructors are provided AFM 36-2203 to teach the Drill and Ceremonies course. In addition, instructors may order the Army Field Manual 3-21.5 and the Interservice Cross-Index Drill Manual to

supplement the teaching of Drill and Ceremonies. There is also a Drill and Ceremonies Instructional DVD

available to aid you in teaching drill.

**Course Objectives are:**

1. Know the importance of drill and ceremonies.

2. Know basic commands and characteristics of the command voice.

3. Apply and execute the concepts and principles of basic drill positions and movements.

4. Know when and how to salute.

5. Apply the principles and procedures of drill movements used with smaller units to the movement of a

squadron.

6. Know the function of the group and the wing.

7. Know how groups and wings are formed.

8. Know the purpose and definition of ceremonies and parades.

**Wellness Program:** Wellness is an official and integral part of the Air Force Junior ROTC program. It

consists of two exercise programs focused upon individual base line improvements with the goal of

achieving a national standard as calculated by age and gender. The Wellness curriculum is instrumental

in developing citizens of character dedicated to serving our nation and communities. The program is

provided as a tool to help you develop individualized training programs for your cadets. Cadets will be

given the opportunity to put into practice the wellness concepts that are taught in Leadership Education

100. Instructors are free to include other activities cadets enjoy such as team sports in order to keep the

Wellness Program fun and motivating. Instructors are also encouraged to utilize sites such as

www.pecentral.org to help develop lesson plans and fitness activities. The Wellness Program also

provides a list of 19 exercises with examples that may be utilized in a 36-week program modifiable tomeet individual and district/state goals. Instructors should utilize fitness programs that best fit the

requirements within their district/county/state. HQ AFJROTC offers suggested fitness programs that may

meet these requirements that will allow for tracking through WINGS. Cadet fitness improvement is

rewarded, either by earning the Health and Wellness Ribbon.

**The course objective for the Wellness Program is to:**

Motivate AFJROTC cadets to lead active, healthy lifestyles beyond program requirements and into their

adult lives.

**The goals of the Wellness Program are to:**

1. Create an individualized training program based on national standards by age and gender.

2. Identify areas of improvements for each cadet and provide guidance for improvement.

3. Incorporate a physical training program to reach fitness goals.

**UNIFORM DAY:** Wednesdays, Thursdays, and during Special Events as determined by the SASI and/or

ASIs. ALL cadets are required to wear the appropriate uniform each Wednesday or Thursday, from the

start of the school day until released. **HABITUAL NON-UNIFORM WEAR /OR FAILURE TO MAINTAIN**

**STANDARDS WILL RESULT IN A FAILING GRADE AND DISMISSAL FROM THE PROGRAM.** Failure to turn

in uniforms when changing schedule or graduating will result in the student being placed on the

“Fines/Holds” list until the uniforms are paid for/returned.

**GRADING AND EVALUATION PROCEDURES:** Grading is non-competitive. Your final grade is based on

the following graded items as weighed:

**ITEM % OF GRADE**

Academics Classwork & Exams 40%

Leadership Uniform Wear & Class Participation 40%

Physical Training Dressing out and Participation 20%

**TOTAL 100%**

**Exams:** All exams (including the semester final exams) will be based on classroom instruction and

assigned readings. Final exams will emphasize all course material presented during that period and will

be comprehensive. Tests will consist of multiple-choice, true-false or short answer questions. NOTE:

Semester exams comprise 15% of your final grade.

**COMMUNITY SERVICE:** Cadets will have multiple opportunities to perform Air Force JROTC sponsored

community service activities during each semester.

**CURRICULUM IN ACTION TRIPS (CIA)/FIELD TRIPS:** Throughout the semester, cadets will have

opportunities to participate in school-sponsored activities that serve as an extension of the AFJROTC

curriculum. These trips may include NASA, USS Lexington, military bases, etc. Cadets must be in good

academic and disciplinary standing to participate.

**CELL PHONES:** Cell phones must remain turned off and out of sight during the instructional day unless

they are being used for instructional purposes.

**Class Attendance and Participation:** Per Texas law, all students must be in attendance 90 percent of the

days the class is being offered to receive credit.

**BEHAVIOR:** The nature of the AFJROTC mission, as well as its high visibility within the school and

community requires it members to adhere to higher standards than might be found among the student

population. Inappropriate behavior, in or out of uniform, is prohibited while participating in AFJROTC.

This behavior includes, but is not limited to, consuming alcohol, drug abuse, tobacco use, horseplay,

public displays of affection, fighting, disparaging remarks, insubordination, disrespect, verbal threats

and physical attacks

**CLASSROOM DEPORTMENT:** Ensure you come to class fully prepared. Study/read assigned materials

and be prepared to discuss issues or answer questions during class. You are expected to be in the

classroom and ready to proceed with the lesson at the scheduled class time. If you are late, you will be

marked as late on class attendance. During each class period the Flight Commander and/or Flight

Sergeant will act as class leader. Also, you should use appropriate terms of respect when addressing any

instructor or guest speaker, e.g., “Sir”, “Ma’am”, Colonel, Chief, or Sergeant.

**EXPECTATIONS FOR CADETS**

1. Follow the chain of command (i.e. cadet-element leader - assist. Flt/CC – Flt/CC – Ops/CC – Sq/CC –

Group/CC – Wing/CC - ASI – SASI).

2. Always use the titles sir/ma’am when addressing AFJROTC staff and senior ranking cadets.

3. Be on time. Don’t be late to class, scheduled events, practices, etc.

4. Always bring your required items to class (notebook, pen/pencil, textbook, etc.).

5. Wear the correct uniform on the appropriate day.

6. Place personal belongings in lockers, top of locker, under your desk – nothing in the aisle.

7. Raise your hand and wait to be acknowledged; do not talk without permission.

8. Listen respectively and attentively to the speaker/presenter or fellow cadets when they are speaking.

9. Treat others with mutual respect. Profanity, vulgar language, racial or ethnic slurs, bullying (in any

form), derogatory comments, sexual harassment, or harassment of any fellow cadet or student will not

be tolerated.

10. Remain in your seat unless given permission to move about the room

11. Remain professional; do not sit on desks, tables, trash cans, etc.

12. Unauthorized personnel are not allowed in the staff offices.

13. Always use the trash can to dispose of trash. If you see trash on the floor, clean it up.

14. No eating or drinking in the classroom.

15. Wearing hats or sunglasses indoors is prohibited.

16. Maintain loyalty to the Corps, school, and your values.

17. No horseplay in the AFJROTC areas.

18. Maintain self-control and your self-respect at all times.

19. Do not disrespect instructors, higher-ranking cadet officers, NCOs, or peer cadets.

**CLASSROOM PROCEDURES:**

1. Enter the classroom, put up your gear, proceed directly to your desk, stand at parade rest, and no

talking.

2. Place books and backpacks in the wall lockers.

3. Fall in at “Parade Rest”.

4. The flight commander/flight sergeant will call the class to “Attention” and face the U.S. Flag for the

pledge of allegiance, then face forward to recite the Cadet Creed. The commander/flight sergeant

commands seats and every takes their seats and waits for further instruction.

5. When roll is taken cadet’s will answer “here sir/ma’am”

6. After roll, the Flight Commander will read the announcement for the day and once complete, report

to instructors call the flight to “Attention” and then fall the flight out

7. Approximately two minutes before the class dismissal bell rings, the instructor will direct the Flight

Commander or Flight Sergeant to prepare the class for dismissal by stating “PREPARE FOR DISMISSAL.”

Cadets will stop class work and put books and classroom materials away. Cadets will clean up their

desks, pick up any trash in the immediate vicinity of their desks, align their desks with others in their

element, and prepare to stand for dismissal, and assume “PARADE REST”

8. At dismissal the Flight Commander/Sergeant will call the flight to “ATTENTION”. Cadets will come to

the position of ATTENTION and wait for further instructions.

9. The Flight Commander/Sergeant will check that all trash is picked up and the desks are aligned. The

Flight Commander/Sergeant will notify the instructor that “The Flight is Ready for Dismissal.” After the

instructor states “Dismiss the Flight”, the Flt CC/Flt Sgt will “DISMISS” the flight. Cadets can then retrieve

their personal belongings and depart the classroom.

DAVID T. GRAY, Major, USAF (Retired)

Senior Aerospace Science Instructor

TX-031st AFJROTC