

AIR FORCE JUNIOR ROTC (GA-052) COURSE SYLLABUS (2022-2023)

“Character Is Integrity Projected Over Time”

COURSE NAMES: **AEROSPACE SCIENCE 100** – *MILESTONES IN AVIATION HISTORY*, **AEROSPACE SCIENCE 200** - *THE SCIENCE OF FLIGHT*, **AEROSPACE SCIENCE 220** – *CULTURAL STUDIES*, **LEADERSHIP EDUCATION I** – TRADITIONS, WELLNESS, AND FOUNDATIONS OF CITIZENSHIP, **LEADERSHIP EDUCATION II** – COMMUNICATION, AWARENESS, AND LEADERSHIP, **LEADERSHIP EDUCATION III** – LIFE SKILLS & CAREER OPPORTUNITIES, **LEADERSHIP EDUCATION IV** – FUNDAMENTALS OF MANAGEMENT, **DRILL and CEREMONIES**, and **WELLNES /PHYSICAL TRAINING**

CREDIT HOURS: 1 elective credit for each semester

INSTRUCTORS: Major Dodson

REQUIRED TEXTS: (AS: V-7025T), (AS: V-7525T), (AS: V-7425T), (LE 100: V-7114T), (LE II: V-7201T), (LE 300: V-7013T), (LE IV: V-7419T), (Drill and Ceremonies: V-2627W)

COURSE DESCRIPTION/PERFORMANCE OBJECTIVES:

Aerospace Science – Milestones In Aviation History (First year cadets)

Fall Ch 1-2 Spring Ch 3-4

Milestones In Aviation History: This is an aviation history course focusing 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 astronomical and space exploration history.

The course objectives are:

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

Fall 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

Fall Chapter 2 Developing Flight

Lesson 1 Airpower in World War I

Lesson 2 Expanding the Horizon from Barnstormers to Mainstream

Lesson 3 Early Developments in Commercial Flight

Spring Chapter 3 The Evolution of the Early Air Force

Lesson 1 The Army Air Corps

Lesson 2 Airpower in World War II

Lesson 3 Significant Aircraft of World War II

Spring Chapter 4 Commercial and General Aviation Take Off

- Lesson 1 The Development of Federal Regulations and Aviation
- Lesson 2 The Propeller Era in Commercial Flight
- Lesson 3 General Aviation Takes Flight
- Lesson 4 The Jet Era in Commercial Flight

Aerospace Science 200 – The Science of Flight (Second year cadets)

Fall Ch 1-2 Spring Ch 3-4

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.

After successfully completing the Aerospace Science 200 course student will:

- Know basic facts and general principles of the atmosphere and weather elements
- Know role of weather forecasting in aviation and general principles about aviation weather
- Know physiology of flight, history of aerospace medicine and use of protective flight equipment
- Know the principles of basic aeronautics, aircraft motion, engine principles and rocket operation
- Know how to use navigational aids, elements of navigation and navigation charts
- Know the types of navigation instruments, dead reckoning techniques and navigational aids
- Analyze the elements of flight
- Evaluate how atmospheric conditions affect flight
- Evaluate how flight affects the human body
- Analyze flight navigation and the purpose of aerial navigation aids

Fall Chapter 1 How Airplanes Fly

- Lesson 1 Principles of Flight
- Lesson 2 The Physics of Flight
- Lesson 3 The Purpose and Function of Airplane Parts
- Lesson 4 Aircraft Motion and Control
- Lesson 5 Flight Power
- Lesson 6 Aviation Innovation

Fall Chapter 2 Working Through Flight Conditions

- Lesson 1 The Atmosphere
- Lesson 2 Weather Elements
- Lesson 3 Aviation Weather
- Lesson 4 Weather Forecasting
- Lesson 5 The Effects of Weather on Aircraft

Spring Chapter 3 Flight and the Human Body

- Lesson 1 Human Physiology and Air Flight
- Lesson 2 Protective Equipment and Aircrew Training

Spring Chapter 4 Flying From Here to There

- Lesson 1 Navigational Elements
- Lesson 2 Navigational Aids
- Lesson 3 Dead Reckoning and Wind
- Lesson 4 Flight Instrumentation
- Lesson 5 Navigation Technology

Aerospace Science – An Introduction to Global Awareness (Third year cadets)
Fall Introduction-Ch 1 Spring Ch 3-4

An Introduction to Global Awareness:

The course objectives are:

- Know why the Middle East is viewed as a cradle of civilization
- Know the characteristics of Judaism, Christianity, and Islam
- Know about changes in the Middle East during the 20th Century
- Know the different groups of people who live in the Middle East
- Know the geographic locations of Japan, Korea, China, India, Pakistan, and Afghanistan
- Know the major religions of Asia
- Know the main ethnic groups of Asia
- Know the five major regions of Africa
- Know the natural resources of Africa
- Know the distinctive characteristics of African culture
- Know the main ethno-linguistic groups in Africa
- Know the geographic locations of Russia and the countries of the former Soviet Republics
- Know the major religious groups of Russia and the former Soviet Republics
- Know the historical context of Russia from the Kievan Rus through the time of Peter the Great
- Know how events from the Nineteenth Century and World War I contributed to the October Revolution
- Know the economic and political impacts of World War II and the Cold War on Russia
- Know the effects of the fall of communism
- Know the geographic locations of the five major regions of Latin America
- Know the major religious groups and languages of Latin America
- Know the region's history before and after the European conquest
- Know some key historical events associated with Latin America since independence
- Know the geographic locations of the major nations of Europe on a map
- Know how Ancient Greece and the Roman Empire influenced Europe's development
- Know how Christianity, Islam, and Judaism affected the development of Europe
- Know how nationalism destroyed the continental European empires
- Know how Marxism, socialism, and fascism affected the development of Europe

Fall Introduction What is Global Awareness?

Global Cultures, Interactions, and Relationships

Global Economics, Trade, and Markets

Environmental Concerns, Natural Resources, and Global Growth

Ethics, Religion, Poverty, Wealth, and Human Rights

Technology, Education, and the Competition for Jobs

Fall Chapter 1 The Middle East

Lesson 1 The Middle East: An Introduction

Lesson 2 The Arab-Israeli Conflict

Lesson 3 The Persian Gulf Wars

Lesson 4 Islamic Fundamentalism and Terrorism

Lesson 5 US Interests and Regional Issues in the Middle East

Spring Chapter 2 Asia

Lesson 1 Asia: An Introduction

Lesson 2 Japan, Korea, and China

Lesson 3 India, Pakistan, and Afghanistan

Lesson 4 Environmental and Social Issues in Asia

Lesson 5 US Interests and Regional Issues in Asia

Spring Chapter 3 Africa

Lesson 1 Africa: An Introduction

Lesson 2 The Shadow of Western Colonialism

Lesson 3 Dictators, Leadership Challenges, and Ethnic Clashes

Lesson 4 AIDS, Health, Poverty, and Human Rights

Lesson 5 US Interests and Regional Issues in Africa

Leadership Education I – Introduction to AFJROTC (First year cadets)

Fall Ch 1-2 Spring Ch 3-4

LEI: Introduces cadets to the Air Force Junior Reserve Officer Training Corps (AFJROTC) program, providing a basis for progression through the rest of AFJROTC program while instilling elements of good citizenship. It contains sections on cadet and Air Force organizational structure; uniform wear; customs and courtesies, and other military traditions; health and wellness; fitness; individual self control; and citizenship.

After successfully completing the *Leadership Education I course* student will:

- Know the importance of AFJROTC history, mission, purpose, goals, and objectives.
- Know military traditions and the importance of maintaining high standards of dress and personal appearance.
- Know the importance of attitude, discipline, and respect, and why values and ethics are important.
- Know the importance of individual self control and effective stress management techniques
- Know customs and courtesies associated with United States flag and the National Anthem
- Know the importance of citizenship and the different forms of government.

Fall Chapter 1 Introduction to JROTC Programs

Lesson 1 Organization of the JROTC

Lesson 2 The Military Uniform and Appearance Standards

Lesson 3 Customs and Courtesies for Junior ROTC

Lesson 4 Attitude, Discipline, and Respect

Lesson 5 Ethics, Values, and Morals

Lesson 6 Social Etiquette and Dining-In, Dining-Out

Fall Chapter 2 Personal Behavior

Lesson 1 Note Taking and Study Skills

Lesson 2 Managing Stress

Lesson 3 Making Positive Decisions

Lesson 4 Emotional and Mental Health Care

Lesson 5 Avoiding and Preventing Violence

Spring Chapter 3 Be Health Smart

- Lesson 1 Your Body Systems
- Lesson 2 Nutrition
- Lesson 3 The Benefits of Physical Activity
- Lesson 4 Understanding Your Body Image
- Lesson 5 First Aid

Spring Chapter 4 Making Safe, Drug-Free Decisions

- Lesson 1 Medicines and Drugs
- Lesson 2 Tobacco
- Lesson 3 Alcohol
- Lesson 4 Environmental Health

Leadership Education II – Communication, Awareness and Leadership (Second year cadets)
Fall Ch 1-2 Spring Ch 3-5

LEII: focuses on the Air Force Junior Reserve Officer Training Corps (AFJROTC) mission to “develop citizens of character dedicated to serving their nation and community. “This is accomplished through better communication, increased awareness of self and others, and improved leadership. Woven throughout the course is the underlying theme of developing personal integrity while emphasizing leadership and other values, such as service and excellence.

After successfully completing the *Leadership Education II: (Communication)* course, student will:

- Apply the key factors of effective communication
- Know the ways in which personal awareness affects individual actions
- Know the key elements of building and encouraging effective teams
- Apply the key behaviors for becoming a credible and competent leader

Fall Chapter 1 Learning and Communication

- Lesson 1 Learning to Communicate
- Lesson 2 Learning to Listen
- Lesson 3 Learning to Think Critically

Fall Chapter 2 Communicating Effectively

- Lesson 1 The Basic Checklist for Writing
- Lesson 2 Writing Effectively
- Lesson 3 Speaking Effectively

Spring Chapter 3 Understanding Your Attitude

- Lesson 1 Interpreting Events and Experiences
- Lesson 2 Developing a Positive Attitude
- Lesson 3 What it takes to Be a Leader

Spring Chapter 4 Understanding Your Actions

- Lesson 1 Integrity and Character
- Lesson 2 Personality and Actions
- Lesson 3 Consequences and Responsibilities

Leadership Education III – Life Skills and Career Opportunities (Third year cadets)
Fall Ch 1-2 Spring Ch 3-4

LEIII: focuses on the Air Force Junior Reserve Officer Training Corps (AFJROTC) mission to “develop citizens of character dedicated to serving their nation and community. “This is accomplished through teaching the values of community service, responsibility, character, and self-discipline. The course is designed to equip students with essential life skills, focusing on educational and career path. The underlying theme of the course emphasizes that responsibility in life skills supports good citizenship.

After successfully completing the *Leadership Education III: (Life Skills and Career Opportunities)* course, student will:

- Know specific career options to pursue
- Know the elements of a personal budget and financial plan.
- Know the requirements for applying to a college or university.
- Know the essential process for pursuing a career.

Fall Chapter 1 Charting Your Financial Course

Lesson 1 Creating a Budget

Lesson 2 Savings and Bank Accounts

Lesson 3 Real-Life Issues in Buying and Selling

Lesson 4 Pioneers of Flight

Fall Chapter 2 Managing Your Resources

Lesson 1 Avoiding the Credit Trap

Lesson 2 Insurance for Protecting Your Resources

Spring Chapter 3 Career Opportunities

Lesson 1 Researching Careers

Lesson 2 Self-Discovery

Lesson 3 Career Paths

Spring Chapter 4 Aiming Towards a College Degree

Lesson 1 Financing for College

Lesson 2 Selecting a College

Lesson 3 Navigating the Testing Maze

Lesson 4 Essays, Interviews, and Campus Visits

Leadership Education IV – Fundamentals of Management (Fourth Year Cadets)
Fall Ch 1-3 Spring Ch 4-6

LEIV: focuses on the Air Force Junior Reserve Officer Training Corps (AFJROTC) mission to “develop citizens of character dedicated to serving their nation and community.” This course places emphasis on management principles and will tremendously benefit cadets and provide them with the necessary skills and qualities needed to into practice what they have learned during their time in AFJROTC. The leadership topics presented will help prepare them to serve in leadership roles within the corps. The management and leadership skills students will learn in this course will benefit them no matter what route they decide to take after high school.

After successfully completing the Leadership Education IV: (Fundamentals of Management) course, students will:

- Know the history and the importance of management
- Know the techniques and skills involved in planning and decision making
- Know the importance of managing change, stress, and innovation
- Know the key elements of individual and group behavior, the importance of the communication process, and the characteristics of a good leader

Fall Chapter 1 An Introduction to Management

Lesson 1 What is Management?

Lesson 2 Managing the Cadet Corps-An Overview

Lesson 3 Management and Leadership

Fall Chapter 2 Project Management

Lesson 1 Initiating and Planning a Project

Lesson 2 Organizing and Executing a Project

Lesson 3 Closing Out a Project

Fall Chapter 3 Planning-Laying the Foundation

Lesson 1 Starting with a Vision of Success

Lesson 2 Knowing How Much Planning is Enough

Lesson 3 Using Meetings to Plan with Others

Spring Chapter 4 Decision Making-Choosing Wisely

Lesson 1 Improving Your Decision Making

Lesson 2 Decisions That Are Important, but Not Urgent

Spring Chapter 5 Organizing-Managing Time and Change

Lesson 1 Time Management

Lesson 2 Change Management

Spring Chapter 6 Leading-Managing Individual and Group Behavior

Lesson 1 Motivating Others

Lesson 2 Evaluating Others

Lesson 3 Managing Difficult Situations

Drill & Ceremonies (First thru fourth year cadets)

D & C: Leadership training is one of the major objectives of the Air Force JROTC program at every location where cadet training takes place. One of the simplest and most effective ways to teach leadership in the military service is through individual and unit drill. Drill is a necessary skill in the military profession; and, when done well, it has a unifying effect that promotes discipline, teamwork, and esprit de corps within the unit. Individual drill can be a major factor in the development of poise, neatness, precision, confidence, and high morale.

After successfully completing the Drill and Ceremonies course students will:

- Know the importance of drill and ceremonies
- Know the basic commands and characteristics of the command voice

- Apply and execute the concepts and principles of basic drill positions and movements
- Know when and how to salute
- Apply the principles and procedures of drill and movements used with smaller unit to the movement of a squadron.
- Know the function of the group and wing
- Know how groups and wings are formed
- know the purpose and definition of ceremonies and parades

Wellness (First thru fourth year cadets)

- Know basic wellness information necessary to live a healthy lifestyle
- Demonstrate effort and participate in AFJROTC structured exercises
- Demonstrate effort and participate in AFJROTC fitness test
- Demonstrate effort and participate in AFJROTC team sports

TYPICAL WEEKLY LESSON SEQUENCE:

The course will consist of 40% Aerospace Science, 40% Leadership Education and 20% Physical Training/Wellness. This material will be covered each week using the following sequence of instruction:

- Monday:** Leadership Education (ASI)
- Tuesday:** Aerospace Science (SASI)
- Wednesday:** Uniform Wear/Leadership Education (ASI)
- Thursday:** Aerospace Science (SASI)
- Friday:** Wellness/Physical Training (SASI/ASI)

GRADING:

Grades will be a combined evaluation from Aerospace Science (AS) academics, Leadership Education (LE), Uniform Wear, Drill, Physical Training, class presentations/projects, participation/behavior, and community service. Testing of material will be a mix of quizzes and mid/final semester exams. The following grading system will be used throughout the 2022-2023 school year.

Uniform Inspection/Drill/Leadership Lab.....	40%
Classwork (AS and LE)	10%
Final Exam.....	10%
Physical Training/Wellness Program.....	20%
Community Service.....	10%
Program Policy.....	10%
	100%

NOTE: Cadets will have 5 days to make up any missing assignments; up to 3 missing assignments. To make up any assignments past the 3rd assignment, the parent/guardian will be required to send an email or written note to the instructor. This email/note will be shared with the cadet’s counselor and Assistant Principal.

NOTE: Codes to use when students don't turn in assignments: X – Excused, 0 – Student demonstrated no evidence of learning, 1 – Student did not submit the assignment, 2 – The assignment is incomplete, 3 – Student was absent

COMMUNITY SERVICE: Cadets will have multiple opportunities to perform Air Force JROTC-sponsored community service during each semester. Members of the corps should aspire to participate in at least 5 community service hours each semester.

COURSE ACCOUNTABILITY:

The instructors expect all student work to be turned in on time and with the student's name on each assignment. If the student fails to turn in their work when due, forgets to put their name on an assignment, or misses a uniform inspection, then the instructor will assign a grade of zero. The instructors will post each assignment and due date. If absent, it is the student's responsibility to determine what make-up work is required. It is the responsibility of the student to seek assistance if required and the responsibility of the instructors to provide such assistance as required. The instructors pledge to work with all cadets to ensure their success in the AFJROTC program.

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