

**LUCY RAGSDALE HIGH SCHOOL AFJROTC**  
**AEROSPACE SCIENCE II (2nd YEAR CADETS)**  
**2nd Semester**

**COURSE NAME:** Aerospace Science II/III Blended

**CREDIT TYPE:** One General Elective Credit/One Honors Elective Credit

**INSTRUCTORS:** Chief Michael McMillan (ret), Senior Instructor [mcmillm@gcsnc.com](mailto:mcmillm@gcsnc.com)  
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**AIR FORCE JUNIOR RESERVE OFFICER TRAINING CORPS (AFJROTC) MISSION:**

Our mission is to develop citizens of character.

\*\*This class is a combination of all second- and third-year cadets. The curriculum is broken out as follows:  
Leadership Education (50%), Aerospace Science (30%), and Wellness/Physical Fitness (20%).

**TEXT AND MATERIALS (provided):**

1. GCS Issued Chrome Book
2. LE 100: Traditions, Wellness, and Foundations of Citizenship
3. LE 200: Communication, Awareness and Leadership
4. LE 300: Life Skills and Career Opportunities
5. AS 200: Science of Flight
6. AS 605 Drones
7. LE 600: Drill LDR
8. L2L AFJROTC Cadet Drill Guide
9. Drill Booklet 30 Step/Cadet
10. DAF Pamphlet 34-1203
11. RHS Cadet Guide

**Leadership Education:**

Leadership education begins with a review of proper wear of the uniform and transitions into the importance of emotional and mental health. Then we will turn our attention to understanding personalities, and responsibilities and consequences of our behaviors. Next, we will discuss leadership characteristics and leadership styles.

Our discussion will take a turn as we explore career opportunities in the public service industry and every citizen's civic responsibility. Cadets will gain an understanding of self-discipline

and teamwork by way of military drill, which focuses on individual and group sequences, and attention to detail.

## **Course Outcomes and Objectives**

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

1. Chapter 1: Intro to JROTC Programs (Lesson 2)
  - a. Determine proper wear of the military uniform
2. Chapter 2: Be Health Smart (Lesson 4)
  - a. Examine when and how to seek professional mental healthcare

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

1. Chapter 2: Communicating Effectively (Lesson 3)
  - a. Speaking Effectively
2. Chapter 3: A Leadership Model (Lesson 1 & 3)
  - a. Interpreting Events & Experiences
  - b. Courage in a Leader

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

1. Chapter 1: Real Life Issues in Buying & Selling (Lesson 3)
  - a. Shopping Issues in Daily Life
  - b. Renting or Leasing an Apartment
  - c. Buying or Leasing a car

### **Drill and Ceremonies (Lesson 1 - 4 and 7)**

- a. Know the importance of drill and ceremonies
- b. Know basic command and characteristics of the command voice
- c. Perform basic drill positions and movements
- d. Perform parade movements as a flight

## **Aerospace Science:**

Our aerospace science lessons will begin with the basic principles of achieving flight with a focus on the safety practices and operation of drones.

## **Course Outcomes**

### **Aerospace Science 100: Milestones in Aviation History**

1. Chapter 5: The US Air Force is Born
  - a. The Army Air Forces Becomes the US Air Force
  - b. Military Aircraft Development After World War II

### **Aerospace Science 605: Drones**

2. PCS Edventure Careers in Drones
  - a. Examine various career options in the UAV industry
  - b. Demonstrate knowledge of drone safety practices and basic flight maneuvers

### **Leadership Education 600: Drill Leadership Development Requirement (LDR)**

Drill LDR is a block of study designed to give cadets the same experience as those who participate in the afterschool drill team. The intent is to identify cadets who want to learn drill at a competitive level but are not able to attend drill practice. During this course cadets will be handpicked to participate in drill competitions.

### **Course Outcomes**

1. **Drill and Ceremonies (Lesson 1 - 4 and 7)**
  - a. Know the importance of drill and ceremonies
  - b. Know basic command and characteristics of the command voice
  - c. Perform basic drill positions and movements
  - d. Perform parade movements as a flight

### **Wellness/Physical Fitness:**

Our wellness program is designed to motivate cadets to lead active, healthy lifestyles beyond program requirements. Cadets will learn proper exercise, stretching techniques, and teamwork. A Physical Fitness Test (PFT) consisting of 3 areas: push-ups, sit-ups and 1 mile run/walk is accomplished at the beginning and end of the semester.

### **Course Objectives**

1. **Wellness/Physical Fitness Program**
  - a. Motivate cadets to lead active, healthy lifestyles beyond program requirements and into their adult lives
  - b. Identify areas of improvement for each cadet
  - c. Incorporate a physical training plan to assist cadets with reaching improvement goals

### **Uniform Days:**

Cadets WILL wear the issued Air Force JROTC uniform on Wednesdays and the issued PT uniform on Fridays unless otherwise announced.

## **Grading**

**Dress & Appearance** (40% of grade): Required to wear uniform on scheduled uniform days

**Quizzes & Exams** (20% of grade):

**Leadership/Followership/Assignments** - (20% of grade) Weekly grade including Attendance, Class Participation & Assignments

**Physical Training** (20% of grade): Wear of Issued shorts/shirt & athletic shoes mandatory.

## **Grading Scale**

A - 90% and above

B - 80% - 89%

C - 70% - 79%

D - 60% - 69%

F - 59% and below

## **Participation**

Attendance is taken daily, and all cadets are expected to attend class every day. Each day cadets will earn a minimum of 20 Leadership/Followership points when they participate in class. Cadets can lose or earn additional points according to graded items outlined on the daily attendance sheet.

## **\*Attendance**

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## **\*Honors Project**

Conduct research on an approved military aircraft, campaign or **point of interest**. Provide an outline and Give a 5-minute presentation of your research using your outline. Discuss your topic selection with your primary instructor before starting your work. A rubric will be provided.