**BEN L. SMITH HIGH SCHOOL**

**AIR FORCE JUNIOR ROTC**

**NC-033**

**COURSE SYLLABUS**

**AY 2021/2022**

**All Year Groups**

**COURSE NAME:** Aerospace Science I, II, III (Honors), IV(Honors)

**Aerospace Science I –** This introductory course covers the history of airpower, leadership and followership fundamentals, individual self-reliance, discipline, responsibility, and citizenship.

**Aerospace Science II –** This course is ageneral study of aeronautics, principals of flight, leadership, communications and wellness. Second year cadets are expected to prepare for future increased responsibility.

**Aerospace Science III (Honors) –** General study of aeronautics, principals of flight, preparation for assuming cadet corps command and staff positions, and wellness. Cadets will also complete an honors project.

**Aerospace Science IV (Honors) –** Students manage and supervise all aspects of the cadet corps. Duties include command, operation, administration, finance, resource management, and discipline. Cadets will also complete an honors project.

**CREDIT:** 1 Credit General Elective for the Semester

**INSTRUCTOR:** MSgt (ret) Tanya McMillan

**REQUIRED TEXT AND MATERIALS:**

* Aerospace Science 100: *Milestones in Aviation History*
* Leadership Education 100: *Traditions, Wellness, and Foundations of Citizensh*ip
* AF Manual 36-2203, *Personnel Drill and Ceremonies*
* Cadet Guide
* Selected Videos

**COURSE DESCRIPTION:**

The Mission of Air Force JROTC is to develop citizens of character dedicated to serving their nation and community. All cadets receive an orientation to AFJROTC, with a focus on leadership education, aerospace science, and wellness. Cadets will become familiar with the heritage, organization and tradition of service programs, drill, wear of uniform, physical training, and the elements of fellowship and teamwork. Academic and personal development skills are emphasized, while the instructors discuss expected standards of discipline for the AFJROTC cadet corps*.* Cadets will also participate in various community service projects, Curriculum in Action trips (fieldtrips will be scheduled when authorized by GCS), and leadership development activities.

**LE 100: TRADITIONS, WELLNESS AND FOUNDATIONS OF CITIZENSHIP**

**Chapter 1 Introduction to JROTC Organization**

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

**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 Healthcare

Lesson 5: Avoiding and Preventing Violence

**Chapter 3 Be Health Smart**

Lesson 3: The Benefits of Physical Activity

Lesson 4: Understanding Your Body Image

**LEADERSHIP EDUCATION OBJECTIVES:**

**Chapter 1**

* Discuss the history of the nation’s JROTC program.
* Explain the organization of JROTC programs.
* Examine the lines of responsibility and authority in JROTC.
* Explain the uniform wear and history.
* Explain the purpose of uniform wear, restrictions, and standards.
* Describe the uniforms used within special teams.
* Identify military pay grades and rank insignia.
* Describe the difference between a custom and a courtesy.
* Identify historic customs and courtesies.
* Explain the proper methods to demonstrate recognition and respect.
* Describe the standard usage of military time.
* Describe the importance of a positive attitude.
* Describe the importance of discipline.
* Describe the four basic rules of ethics.
* Identify the four types of values.
* Identify the core values of the US military services.
* Explain cultural and universal norms.
* Describe how to make ethical and moral decisions.
* Identify your personal code of conduct.

**Chapter 2**

* Analyze effective note taking strategies.
* Describe the eight types of Thinking Maps®.
* Demonstrate effective study skills.
* Recall effective strategies for taking exams.
* Develop an effective homework plan.
* Explain the difference between positive and negative stress.
* Describe the effects of stress on the body.
* Describe ways to manage stress.
* Analyze methods to manage time.
* Employ a goal setting process to arrive at healthful decisions.
* Explain the impact of communication skills on leadership.
* Apply responsible use of electronic media devices.
* Identify and understand emotions.
* Analyze mental and emotional problems and the effects on behavior.
* Identify sources for getting help with mental and emotional problems
* Examine the problem of violence in our society.
* Identify ways to prevent violence in schools.
* Describe ways of protecting yourself from rape or sexual violence.

**Chapter 3**

* Define the benefits of an active lifestyle.
* Examine ways to increase your level of fitness through exercise.
* Analyze strategies for improving aerobic capacity, muscular strength and endurance, and flexibility to improve overall health.
* Devise a plan to set and achieve fitness goals.
* Identify the three stages of an exercise session.
* Analyze methods to monitor fitness progress.
* Identify safety concerns when participating in sports.
* Evaluate the effects of performance-enhancing drugs (PEDs).
* Define body image.
* Explain the relationship between weight problems and diet.
* Describe ways to manage an appropriate weight.
* Explain the dangers of eating disorders.

**AS 100: MILESTONES IN AVIATION HISTORY**

**Chapter 1: Exploring Flight**

Lesson 1: Ancient Flight

Lesson 2: Early Days of Flight

Lesson 3: Wright Brothers Take Off

Lesson 4: Pioneers of Flight

**Chapter 3: Evolution of the Early Air Force**

Lesson 2: Airpower in WWII

Lesson 3: Significant Aircraft of WWII

**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 of Commercial Flight

**AEROSPACE SCIENCE OBJECTIVES:**

**Chapter 1**

* Describe how humans tried to fly in ancient times.
* Explain key aviation devices created during ancient times.
* Examine why machines do not fly the way birds do.
* Summarize the historical developments of lighter-than-air flight.
* Describe the early military contributions of lighter-than-air flight.
* Examine the early contributors to heavier-than-air flight.
* Describe the Wright brothers first flight.
* Analyze how the principles of airplane flight were applied to the Wright Flyer.
* Describe the contributions the Wright brothers made to US Army aviation.
* Examine how the Wright brothers were the first to succeed in powered flight.
* Describe key individuals and contributions in early aircraft development.
* Compare the contributions of early American pioneers in Aviation.
* Examine the contributions of women in early aviation.

**Chapter 3**

* Explain the strategic role air power played in WWII.
* Explain the significance of air power on D-day.
* Discuss the role of air power in WWII versus the role of air power in WWI.
* Describe the development of strategic air warfare.
* Explain the use of formation pattern bombing and combat formation.
* Describe significant Allied air campaigns in the European theater.
* Describe significant Allied air campaigns in the Pacific theater.
* Describe the developments of bombers during the war.
* Describe the developments of fighters during the war.
* Describe the development of transports during the war.

**Chapter 4**

* Describe what created the need for regulating aviation.
* Describe the organizations that provide oversight of aviation activities.
* Discuss the impact regulations had on aviation.
* Analyze the impact deregulation has had on commercial aviation
* Discuss significant contributions of rigid airships and commercial flight.
* Discuss important commercial aircraft of the propeller era.
* Review the major commercial airlines of the propeller era.
* Explain other developments in commercial airlines’ operations.
* Discuss what created the interest for general aviation.
* Discuss the different type of aircraft that makes general aviation possible.
* Compare the different categories that make up general aviation.
* Explain how a jet engine works.
* Review developments in jet aircraft.
* Summarize the switch to air travel in the United States.
* Examine future commercial aircraft.

**DRILL OBJECTIVE:**

Execute basic drill movements and the 30-Step Drill Sequence.

Drill will be evaluated by the ASI and the SASI. **HABITUAL FAILURE TO WEAR THE UNIFORM AND MAINTAIN STANDARDS WILL RESULT IN A FAILING GRADE AND DISMISSAL FROM THE PROGRAM.** Grades will be computed in accordance with standard district grading policy.

**WELLNESS OBJECTIVE:**

Participate in physical training activities, physical fitness test, Field Day and various team sports.

**GRADING:**

Effective leadership and proper wear of the uniform are important parts of the AFJROTC program. As such Leadership Education /Uniform Inspection count as 40% of the final grade.

Uniform Inspection 40%

Classroom Assignments/Quizzes 20%

Wellness 20%

Exam 20%

**GRADING SCALE: As set by the North Carolina State Board of Education**

**Grade Percentage Required**

A 90 and above

B 80 to 89

C 70 to 79

D 60 to 69

F 59 and below

**UNIFORM WEAR:**

Uniform wear is a large part of the Air Force JROTC program. ALL cadets are required to wear the appropriate uniform each **Wednesday**, from the start of the school day until released. Make-up day for excused absences on uniform day is the following Thursday. There will be **no uniform make-up for unexcused absences**. Failing to wear the uniform all day will result in a reduction of the uniform grade. Multiple failures to wear your uniform can lead to disenrollment from the course. Cadets are required to wear their issued **Physical Fitness uniforms on Fridays** unless otherwise directed. Failure to turn in uniforms by the end of the semester/year will result in placement on the “Fees” list and notification of the assistant principal.

**CLASS ATTENDANCE, PREPARATION AND PARTICIPATION:**

Today’s workforce does not earn a paycheck unless they show up ready for work. Cadets earn grades commensurate with their class participation and effort. Cadets who are not present or prepared cannot participate fully in class. This is especially key to drill and physical fitness. Class preparation includes cadet adherence to proper grooming standards daily as outlined in Air Force Instruction and school dress code.

**QUIZZES:**

Quizzes will be administered throughout the course. Quizzes will cover all material taught since the last quiz or test.

**CLASSWORK:**

Assignments are due at the beginning of the class period, unless otherwise directed or the cadet has an excused absence that day. For excused absences, the assignment will be due on the next class day that the cadet is present. Assignments not turned in on the due date because of an unexcused absence will receive a “0” (zero) grade for that assignment.

**COMMUNITY SERVICE:**

Cadets are required to participate in Air Force JROTC sponsored community service during each semester.

**CURRICULUM IN ACTION TRIPS (CIA)/FIELD TRIPS:**

Throughout the semester, the cadets will have opportunities to participate in school-sponsored activities that serve as an extension of the AFJROTC curriculum. Cadets must be in good academic and disciplinary standing to participate. CIA trips will occur upon GCS lifting of restrictions.

**CLASS BEHAVIOR:**

The nature of the AFJROTC mission, as well as its high visibility within the school and community, requires its members to adhere to higher standards than might be found among the general 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.

**CELL PHONES:**

Cell phones must remain turned off and out of sight during class. In some cases, cell phones will be collected at the beginning of class. Students who use cell phones during class, will have the device confiscated. Parents may pick up the confiscated device from the assistant principal’s office. Any student who refuses to turn over their cell phone will be considered insubordinate and will receive additional disciplinary consequences.