MUSKOGEE HIGH SCHOOL AIR FORCE JROTC COURSE SYLLABUS

AS-300/Exploring Space: The High Frontier/Leadership Education 3/Health & Wellness

Course ID: 2720C

Credit Hours: 1 Elective Credit

Course Teaching Schedule: M-F, During class period

Instructor: Aerospace Science: Major Triplett

Leadership: CMSgt Lepird

Required Text: *Exploring Space: The High Frontier*

Jones and Bartlett Learning, LLC Publishers

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*Leadership Education III: Life Skills and Career Opportunities*

Pearson Learning Solutions

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Required Materials: To successfully complete this course, you will need: Air Force textbooks, workbooks, and uniforms which are **provided by AFJROTC**. Other requirements are Chromebook, paper, pen/pencil, calculator, calendar, and appropriate athletic shoes **provided by you**.

Lessons:

Semester 1 Fall/Winter:

Exploring Space: The High Frontier Unit1, Ch 1-2

Leadership Education: Chapters 1-3

Semester 2 Spring:

Exploring Space: The High Frontier Unit 1, Ch 3-4

Leadership Education Chapters 4-6

Course Objectives:

**Aerospace Science – Exploring Space: The High Frontier (AS300)**

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.

**Leadership Education III – Life Skills & Career Opportunity (LE300)**

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.

**Health and Wellness: III**

1. Motivate cadets to lead healthy, active lifestyles beyond program requirements and into their adult lives
2. Identify areas of improvements for each cadet.

**Course description:**

**Overview:** Each Military Science course is divided into three separate but equivalent sections of study; Aviation Science, Leadership Education, and Health and Wellness. Each school week is divided into 3 parts; 2 days of aviation science, 2 days of leadership education, and 1 day of health and wellness usually designated as physical training or “PT”. Cadets are required to participate in the classroom presentations, briefings and exercises, and in physical training. Leadership Education is sub-divided into smaller sections of learning which includes team-building exercises and Air Force drill requirements. Health and Wellness is broken down into various aspects of physical fitness from team activities to exercises in preparation for the Presidential Youth Fitness Program Exam. All cadets are required and expected to wear “PT” gear (AFJROTC provided) and participate in the scheduled PT activities each week.

**Science:** 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.

All throughout the course are scenarios, video segments, “hands-on” activities and a technology enrichment activity is included in each lesson. As mentioned earlier, the content of this course is correlated using the *National Science Education Standards (NSES)* and the technology enrichment activities are correlated to the *National Educational Technology Standards for Students (NETS***.***S)* standards.

21st Century Skills as defined by the Partnership for 21st Century Skills are also integrated into this course as well. These also include learning and innovation (thinking) skills—critical thinking and problem solving, creativity and innovation, and communication and collaboration; information, media and technology skills—information literacy, media literacy, and ICT (information, communications and technology) literacy; and life and career skills—flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, productivity and accountability, and leadership and responsibility.

**Leadership:** This course it 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.

To help students increase their potential for success through education, they will learn how to select a school that is right for them; how to apply for admission to a vocational or technical school, community college, or college/university; and how to succeed in these learning environments. Information is provided on how to conduct the job search for students who wish to enter the workforce right after high school or after additional education and training.

They will learn how to prepare a winning résumé, and how to develop effective interviewing skills. Students will become more skilled at using the Internet for career research and learn how to network safely using social media. The text also provides information on working for the federal government to include careers in the military, aerospace industry, and public service. Finally, students will consider the most important elements of life skills for all Americans: civic responsibilities, such as volunteering, registering to vote, jury duty, and draft registration.

**Health and Wellness:** Cadets will utilize this time to learn the importance of keeping yourself well and helping others to stay well. Cadets will work together in flights or teams during friendly team oriented competitions, practice drill commands, and exercise in preparation for undertaking the United States Presidential Physical Fitness Exam. Cadets will organize and oversee an annual AFJROTC Field Day where individual flights will compete against one another while performing self-developed and initiated team-building exercises.

**General:** Each instructor reserves the right to allow cadets to lead any or all aspects of the classroom presentations. Normally, classroom power point presentations will be taught by either instructor. However, cadets will be called upon to develop, organize, implement, and oversee numerous activities in and out of the classroom both, during and after normal school hours.

Cadets will be able to discuss the above listed information in class, write appropriate test questions on this information, and pass tests from the selected questions.

Cadets will learn the vocabulary associated with the above information and incorporate it when discussing the information.

Cadets will be able to perform the specified physical training exercises outlined by the cadet command staff and the instructors.

Grading Information:

The PowerSchool computer grading system is used for all grading requirements. Cadet grades for each marking period are divided into the following four categories:

HW - Homework/Participation 10%

QUIZ - Tests/Quizzes 10%

TEST - Uniform Wear 50%

Physical Fitness 10%

Final Exams 20%

**Grade Percentage Required**

A 90% and above

B 89% - 80%

C 79% - 70%

D 69% - 60%

F 59% and below

All cadets are expected and required to participate in all aspects of each part of the program. All cadets are expected to wear and maintain, weekly, the Air Force Blue uniform on the specified uniform day. Cadets are expected and required to wear appropriate “PT” gear during the weekly designated physical training day. Finally, all cadets are expected to maintain grooming standards, in accordance with Air Force guidance and as specified in our cadet handbook which is updated and published annually. Each cadet receives a cadet handbook during the first week of classes.

**UNIFORM DAY:** Wednesday of each week unless otherwise specified by the SASI/ASI

Uniform wear and drill **are not optional** aspects of the AFJROTC program. They are integral parts of the “complete educational experience” that Air Force JROTC offers the high school cadet. Cadets need to be in Dress and Appearance compliance **FIRST** before they are allowed to wear the AFJROTC uniform. If the cadet does not wear their uniform (without good reason) during the specified uniform day, the cadet will receive a “0” for their uniform grade for that week. As listed above, uniform wear is worth 50% of the cadets’ grade for each marking period. If a cadet does not wear appropriate “PT” gear and does not participate, without good reason, during specified PT days the cadet will receive a”0” for that weekly PT training grade. As listed above, Physical Fitness is worth 10% of the cadets’ grade each marking period.

INSTRUCTIONAL GOALS

1. The **mission** of AFJROTC is to develop citizens of character dedicated to serving their nation and community.

2. The **goals** are to instill values of citizenship, give service to the United States, develop personal responsibility, and instill a sense of accomplishments in high school students.

3. The **objectives** are to educate and train high school cadets in citizenship; promote community service; instill responsibility, character, and self-discipline; and provide instruction in air and space fundamentals.

**4. Additional Print Resources**

None are required. However, several books and periodicals are available in the AFJROTC classroom.

5. **Online Resources:** None.

COURSE SCHEDULE

The pace of this course is determined by how each class is motivated by and interested in each specific academic area and associated subject areas. Each class can write their tests and will move at a pace commensurate with the level of coverage. After a test is approved, each class will have one week to study for the test.