**\*\*\*\* CURRENT YEAR COURSE OF STUDY \*\*\*\*\***

**Syllabus II curriculum for S/Y 2021 – 2022**

1. **Course Title**: AFJROTC Aerospace Science (AS-II)/ **Course Number**: 1800310
2. **AFJROTC Mission**: “Developing citizens of character dedicated to serving their nation and community”
3. **Instructor Information**: Lt Col Charles K. Farmer (USAF Retired)

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1. **Textbooks / workbooks (Provided**):
   1. Aerospace Science 200: The Science of Flight

Chapter 1 Lesson 1,2,3,4,6 Chapter 2 Lesson 3,4,5

Chapter 3 Lesson 1 Chapter 4 Lesson 1

* 1. Leadership Education 200: Communication, Awareness and Leadership Chapter 1 Lesson 1,2,3 Chapter 2 Lesson 2,3

Chapter 3 Lesson 3 Chapter 4 Lesson 1,3

Chapter 5 Lesson 1 Chapter 6 Lesson 1,2

Chapter 7 Lesson 2 Chapter 8 Lesson 2

* 1. AF Manual 36-2203: Personnel Drill and Ceremonies (Chapters 1-7)

1. **Course Supplies Needed**: Day Planner/Notebook, Pens, Pencils, Writing Paper
2. **COURSE DESCRIPTION**: 40% Aerospace Science, 40% Leadership Education, and 20% Physical Training/Wellness (40/40/20).
   1. **AEROSPACE SCIENCE**: This second-year course is a science course designed to acquaint the student with the principles of aircraft flight; the aerospace environment, the human requirements of flight, and the principles of navigation. The course begins with a study of the fundamentals of lift, weight, thrust and drag, what makes an airplane fly, and is followed with the atmosphere and elements of weather and their effects on flight. The portion on the human requirements of flight is a survey course on human physiology, discussing the circulatory system, effects of acceleration and protective equipment. We will close with map reading, course plotting and the effects of wind. This academic portion accounts for 40 percent of the student’s grade.
   2. **Leadership Education**: Also 40 percent of the student’s grade, addresses Learning, Communication, and Personal Development; Building Personal Awareness; Understanding Groups and Teams; and Pursuing a Career. Classroom activities stress communication skills and cadet corps activities. Written reports and speeches compliment academic material. Cadet corps activities provide opportunities for greater responsibility within the planning and execution of corps projects. Wear of the Air Force uniform is required 1 day a week, usually on Wednesday. Drill and Ceremonies continue through this year of AFJROTC.
   3. **Physical Training/Wellness**: Conducted 1 day a week, usually Friday, which incorporates 3 HQ AFJROTC approved exercises with stretching and other physical challenge activities. A physical fitness baseline, using the 3 standard exercises, will be accomplished at the beginning of the school year. Throughout the year these exercises in addition to team related exercises and activities will help condition the cadet. At the completion of the year the 3 standard exercises will be evaluated to determine personal gains. Participation in PT is a mandatory requirement to receive ROTC and PE credit.
3. **UNIFORM:** Wear of the Air Force uniform is required 1 day a week, usually on Wednesday. Air Force customs and courtesies are continued, and drill of the flight becomes a required skill for 2 year cadets.
4. **SPECIAL NOTE**: Successful completion of 1800400 and 1800410 would satisfy 1 full credit of PE or 1 full credit of PE and 1 full credit of Fine Arts dependent on the districts selection of options chosen.

**Syllabus III for S/Y 2022 – 2023**

1. **Course Title**: AFJROTC Aerospace Science (AS-III)

**Course Number**: 1800320

**Credit**: 1.0

1. **Curriculum Breakout**: 40% Aerospace Science, 40% Leadership Education, and 20% Physical Training/Wellness (40/40/20).
2. **COURSE DESCRIPTION**: The third year may be AS 3 - The Exploration of Space, Aerospace Science 3 encompasses Introduction to Space Exploration; Orbits and Trajectories; Spacecraft and Launch Vehicles; and Mission Operations & Management. The student examines our earth, moon and the planets, the latest advances in space technology, and continuing challenges of space and manned spaceflight. The manned spaceflight section covers major milestones in the endeavor to land on the Moon, and to safely orbit humans and crafts in space for temporary and prolonged periods. Aerospace Science 3a option acquaints the student with the History of Astronomy; The earth; The Moon; Survey of the Solar System; The Terrestrial Planets; and The Outer Planets. This course explores prehistoric astronomy and the early ideas of the heavens. It progresses to Sir Isaac Newton’s contributions to astronomy through to the Earth’s magnetic fields.
3. **Leadership Education**:Helps students with Mapping Your Future; Charting Your Financial Course; Aiming Toward a College Degree; and Pursuing a Career. Information on how to apply for admission to college or to vocational or technical school is included. Information on how to begin the job search is available to students who decide not to go to college or vocational school.
4. **Physical Training/Wellness:** Conducted 1 day a week, usually Friday, which incorporates 3 HQ AFJROTC approved exercises with stretching and other physical challenge activities. A physical fitness baseline using the 3 standard exercises will be accomplished at the beginning of the school year. Throughout the year these exercises in addition to team related exercises will help condition the cadet. At the completion of the year the 3 standard exercises will be evaluated to determine personal gains. Participation in PT is a mandatory requirement to receive ROTC and PE credit.
5. **UNIFORM:** Wear of the Air Force uniform is required 1 day a week, usually on Wednesday. Air Force customs and courtesies are continued as is the drill and management of the flight. Cadet corps activities include holding positions of greater responsibility in the planning and execution of corps projects.
6. **SPECIAL NOTE**: Successful completion of 1800400 and 1800410 would satisfy 1 full credit of PE or 1 full credit of PE and 1 full credit of Fine Arts dependent on the districts selection of options chosen.

**Syllabus IV for S/Y 2023 – 2024**

1. **Course Title**: AFJROTC Aerospace Science (AS-IV)

**Course Number**: 1800330

**Credit**: 1.0

1. **Curriculum Breakout**: 40% Aerospace Science, 40% Leadership Education, and 20% Physical Training/Wellness (40/40/20).
2. **COURSE DESCRIPTION**: The fourth year is unique from the others. The Senior Aerospace Science Instructor (SASI) may choose which option the instructors would like to incorporate for that year. The options include: AS 4a World Geography – Building a Global Perspective; AS 4b Policy and Organization; AS 4c Survival; AS 4d Aerospace Science: Laboratory Manual; AS 4e Management of the Cadet Corps; or AS 4f Global and Cultural Studies. These fourth year options allowing the student to explore different curriculum opportunities ranging from world geography global perspectives, to management of the entire corps, or the latest addition to the AFJROTC program, exploring 6 selected areas of global diversity investigating their uniqueness and culture.
3. **Leadership Education**: Principles of Management - is a guide to understanding the fundamentals of management techniques; decisions; functions; and managing self and others. Emphasis is placed on allowing the student to see himself/herself as a manager. Every organization, regardless of size, faces the challenge of managing operations effectively. Four areas to be reviews include Management Techniques, Management Decisions, Management Functions, and Managing Self and Others. Additionally, wear of the uniform, Air Force customs and courtesies, and basic drill skills are continued.
4. **Physical Training/Wellness:** Conducted 1 day a week, usually Friday, which incorporates 3 HQ AFJROTC approved exercises with stretching and other physical challenge activities. A physical fitness baseline using the 3 standard exercises will be accomplished at the beginning of the school year. Throughout the year these exercises in addition to team related exercises will help condition the cadet. At the completion of the year the 3 standard exercises will be evaluated to determine personal gains. Participation in PT is a mandatory requirement to receive ROTC and PE credit.
5. **UNIFORM**: Wear of the Air Force uniform is required 1 day a week, usually on Wednesday. Air Force customs and courtesies are continued as is the drill and management of the flight and management of the cadet corps. Cadets are exposed to positions of greater responsibility in the planning and execution of corps projects.
6. **SPECIAL NOTE**: Successful completion of 1800400 and 1800410 would satisfy 1 full credit of PE or 1 full credit of PE and 1 full credit of Fine Arts dependent on the districts selection of options chosen.

**Syllabus I curriculum for S/Y 2024 - 2025**

1. **Course Titles**: AFJROTC (AS-I)
2. **AFJROTC Mission**: “Developing citizens of character dedicated to serving their nation and community”
3. **Instructor Information**: Lt Col Charles K. Farmer (USAF Retired)

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1. **Textbooks / workbooks (Provided**):
   1. Aerospace Science 100: Journey into Aviation History (Units 1-4)
   2. Leadership Education 100: Traditions, Wellness, Foundations of Citizenship (Units 1-5)
   3. AF Manual 36-2203: Personnel Drill and Ceremonies (Chapters 1-7)
2. **Course Supplies Needed**: Day Planner/Notebook, Pens, Pencils, Writing Paper
3. **Course Description**: AFJROTC I is the introductory course for all new cadets. The course consists of three components: Aerospace Science (40%), Leadership Education (40%), and Wellness/Fitness (20%).

**Aerospace Science** curriculum acquaints the student with Ancient flight, the Pioneers of Flight; the Early and Modern Air Force; and extending flight into space. The emphasis is on civilian and military contributions to aviation; the development, modernization, and transformation of the Air Force. Classroom hours review the development of flight from ancient legends through the Persian Gulf War and beyond. Additionally, the role of the military throughout the history of the United States is identified.

**Leadership Education** studies are related to Heritage, Organization, & Traditions; Individual Self-Control; Wellness and Fitness; and Citizenship in the United States. Drill and Ceremonies are introduced within the leadership education curriculum covering additional areas of customs and courtesies, study habits, and time management. Wear of the Air Force uniform is required 1 day a week, usually on Wednesday.

**Physical Training/Wellness** is conducted on Friday of each week which incorporates 6 HQ AFJROTC approved exercises with stretching and other physical challenge activities. A physical fitness baseline will be accomplished at the beginning of the school year. Throughout the year these exercises, in addition to team related exercises, will help condition the cadet. At the completion of the year the 3 standard exercises will be evaluated to determine personal gains. Participation in PT is a mandatory requirement to receive ROTC and /or PE credit.