

## NC-032, AFJROTC COURSE SYLLABUS

### AEROSPACE SCIENCE II: GLOBAL AWARENESS

The second year includes a course that focuses on the aerospace environment, human requirements of flight, and the principles of flight and navigation. The course is designed to complement materials taught in math, physics, and other science-related courses and is aligned with the National Science Education Standards, the Math Standards and Expectations, and ISTE National Educational Technology Standards for Students. This course will also dive into how the world is divided into specific regional areas and provide cadets with the knowledge of the rapidly changing world in which they live. **Monday** is the Uniform Inspection Day for cadets unless changed by the SASI. Effective: Aug 2016

#### The Course Objectives are:

1. List and explain the atmosphere environment.
2. Describe the basic human requirement for flight.
3. State why Bernoulli's principle and Newton's Laws of Motion are applied to the theory of flight and the operating principles of reciprocating engines, jet engines and rocket engines.
4. Describe the basic elements of navigation, the four basic navigation instruments, and the current methods of navigation.
5. Know the basic history of each area of study in Global Awareness.
6. Know the cultural heritage of each area of study.
7. Understand why the United States has an economic, political, and cultural interest in each area.
8. Know implications of continued United States involvement in these areas of the world.

#### Units Covered

1. The Science of Flight – A Gateway to New Horizons Chapter 1, 3 & 4
2. Global Awareness Chapter 1 & 3
3. Global Awareness Chapter 5 & 6

**Grading:** The AS or Global Studies portion of the course counts 40% of the AFJROTC grade and will be graded by the SASI. The Leadership Education portion counts 40% and will be graded by the ASI. Wellness will be 20% of the AFJROTC grade and will be graded by both instructors.

#### **Grading Policy (current for AY 2016/2017)**

1. Academic/Leadership Tests	25%
2. Workbook assignments, Class work, Quizzes	20%
3. Uniform Inspections	35%
5. Drill/Health & Wellness	20%

**Wellness:** Health and Wellness is an official part of the Air Force Junior ROTC program. It is an exercise program focused upon individual base line improvements with the goal of achieving a national standard as calculated with age and gender. The program at NC-032 also seeks to address the mental and spiritual aspects of individual wellness through relaxation and teambuilding activities. Wellness is instrumental in developing citizens of character dedicated to serving our nation and communities. **Cadets will be given the opportunity to put into practice the wellness concepts that are taught in Leadership Education.** The Wellness Program is a 18-week program modifiable to meet individual goals. Personal improvement will be rewarded. The 18-week program is comprised of several exercises which can be conducted with minimal space and with minimal climate dependency (e.g. the 1-mile run). The exercises develop all muscle groups and provide sufficient anaerobic and aerobic intensity. They require no equipment and use only body weight and common objects (e.g. chairs).

Instructors: **Capt Timothy Peedin**

**CMSgt Thomas Bridgers**