

AEROSPACE SCIENCE / LEADERSHIP EDUCATION
THE SCIENCE OF FLIGHT / LIFE SKILLS AND CAREER OPPORTUNITIES

CREDIT HOURS: ONE (1) HOUR OF PHYSICAL EDUCATION OR GENERAL ELECTIVE CREDIT

INSTRUCTOR'S NAME: Lt Col William H. Malpass, USAF (Retired)

REQUIRED TEXT: THE SCIENCE OF FLIGHT (2001) / LIFE SKILLS AND CAREER OPPORTUNITIES (2006)

COURSE DESCRIPTION FOR THE SCIENCE OF FLIGHT: This course acquaints the student with the aerospace environment, the human requirements of flight, principles of aircraft flight, and principles of navigation. The course begins with a discussion of the atmosphere and weather. After developing an understanding of the environment, how that environment affects flight is introduced. Discussions include the forces of lift, drag, thrust, and weight. Students also learn basic navigation including map reading, course plotting, and the effects of wind. The portion on the Human Requirements of Flight is a survey course on human physiology. Discussed here are the human circulatory system, the effects of acceleration and deceleration, and protective equipment.

The Science of Flight course objectives are:

1. Know the atmosphere environment.
2. Know the basic human requirements of flight.
3. Know 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. Know the basic elements of navigation, the four basic navigation instruments, and the current methods of navigation.

COURSE DESCRIPTION FOR LIFE SKILLS AND CAREER OPPORTUNITIES: This course helps students decide which path to take after high school. Information on how to apply for admission to college or to a 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. Available also is information about financial planning and how to save, invest, and spend money wisely, as well as how not to get caught in the credit trap. Students are informed about real life issues such as understanding contracts, leases, wills, warranties, legal notices, and personal bills. Citizen responsibilities such as registering to vote, jury duty, and draft registration will be helpful too. For those students who may be moving into an apartment of their own, information is presented on apartment shopping and grocery shopping skills. There is information on how to prepare a résumé and the importance of good interviewing skills. If there are students who are interested in a career in the military, with the federal government, or an aerospace career, information is also provided for them.

The Life Skills and Career Opportunities course objectives are:

1. Know specific career options to pursue.
2. Know the elements of a personal budget and financial plan.
3. Know the requirements for applying to a college or university.
4. Know the essential process for pursuing a career.

UNIFORM DAY: Cadets must properly wear the Air Force blue uniform to school and throughout the school day each Wednesday, if their AFJROTC class meets on Wednesday; or each Thursday, if their AFJROTC class meets on Thursday.

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GRADING PROCEDURES: Cadets will be evaluated according to the following criteria (See the 2009 Cadet Guide for complete details.):

- a. Cadets must wear the Air Force blue uniform on the scheduled uniform day. Cadets who *habitually fail to wear* the uniform as required will NOT receive a passing grade in the course. UNIFORM WEAR and participation in E2C (5-10 grades per 6-week grading cycle) will count for 40% of the course grade.
- b. HOMEWORK and minor classroom assignments (2-4 grades per 6-week grading cycle) will count for 10% of the course grade.
- c. TESTS, PROJECTS, and other major assignments (2-4 grades per 6-week grading cycle) will count for 40% of the course grade.
- d. Unannounced QUIZZES (2-4 grades per 6-week grading cycle) will count for 10% of the course grade.

<u>Grade</u>	<u>Percentage Required</u>
A	90% and above
B	89% - 80%
C	79% - 75%
D	74% - 70%
F	69% and below