



COURSE OUTLINE

<u>AVI 101</u>	<u>AEROSPACE DEVELOPMENT</u>
Course Number	Course Title
3	3 lecture hours
Credits	Hours: lecture/laboratory/other (specify)

Catalog description:

Historical approach to U.S. and international aviation development including man's first efforts to fly, the development of aircraft, modern growth of the aerospace industry and the impact of aviation and flight on mankind.

Prerequisites: None

Corequisites: ENG 101

Required texts/other materials:

**Aviation History
By Anne Milbrooke
Jeppesen Sanderson, Inc.
Latest Edition**

Last revised: Fall 2004

Course coordinator: Professor Joan Jones
BS 125
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Instructor Office Hours: _____

- Information resources:**
1. Texts to supplement the course text include publications from Smithsonian Books As well as various other aviation publishers.
 2. Numerous web-based resources which specialize in aviation history, individuals, Specific aircraft or companies.
 3. Videos and guest speakers to complement information presented in Class.

Other learning resources: Group activities and individual presentations are an integral component of the course and enhance the learning experience.

Course goals:

The student will be able to:

- Describe the events which impacted the development of the aviation industry.
- Determine those individuals who made significant contributions to aviation/aerospace development.
- Describe specific aircraft that evolved during each of the specific time periods of aviation's growth.
- Research a related topic which interests them and present the information to the class in a logical and well-organized manner.
- Compare the various modes of flight and determine the relevance of each to the overall impact of aviation/aerospace on society.

Course-specific General Education goals and objectives.

Gen Ed Mission:

- **Students will learn how to integrate their learning into a lifelong process of understanding themselves, others, and how the world of aviation fits into it.**

Communication:

- Students will read, write, and listen critically and reflectively.
- Students will evaluate and revise their written and oral communication so as to produce effective material related to aviation development.

Critical Thinking and Information Literacy:

- Students will use critical thinking and problem-solving skills in analyzing information gathered through various resources for the course.
- Students will integrate information located in a cohesive manner that addresses their research question and then communicate the information to the appropriate audience.

Ethical Dimension:

- Students will be able to identify ethical implications of a historical event or situation that they learn about involving aviation.
- Students will integrate their knowledge, take a position on a situation, and defend it with logical arguments.

Diversity and Global Perspective:

- Students will link development of a culture with development of its air transportation system and understand its importance.
- Students will evaluate the impact of prejudicial attitudes and their influence on the aviation industry in the past in addition to how and why these attitudes have changed and the result of such change.

Units of study in detail.

Unit I **ACHIEVING POWERED FLIGHT (approximate time 3 weeks)**

Learning Objectives

The student will be able to...

- Identify prominent persons who experimented with kites, balloons, gliders, and airships.
- Understand the ways in which early pioneers of flight contributed to aviation development.
- Describe the primitive types of airframes and powerplants utilized by early experimenters.
- Acquire an appreciation for the achievements of the Wright Brothers and their contemporaries.

Unit II **AVIATION GOES TO WAR and the GOLDEN AGE (approximate time 6 weeks)**

Learning Objectives

The student will be able to...

- Trace the development of aviation as it was affected by the outbreak of World War I.
- Identify the aces of the wars.
- Gain an understanding of the evolution of the types of aircraft utilized in battle and the aerial tactics employed by their pilots.
- Compare and contrast the two great air wars as well as Korea, Viet Nam, Gulf War, etc. from the aspects of aircraft type and capabilities, tactics, piloting skills and types of battles.
- Become aware of how the pace of aviation development increased between the various wars.
- Understand and appreciate the significance of the Golden Age and all of its facets.
- Learn about the varieties of specialized aircraft which developed during this time period.

Unit III **CONTEMPORARY AVIATION (approximate time 6 weeks)**

Learning Objectives

The student will be able to...

- Become familiar with the tremendous technological advances for both military and civilian aircraft that have taken place since the end of World War II.
- Trace the development of commercial aviation and its impact on the transportation industry.
- Identify and explain the importance of the various general aviation categories-business, sport, instructional, etc.
- Gain an awareness of the variety of aviation career opportunities that are available to a qualified individual.

- Project, based on information learned in the course, the future direction of aviation/aerospace development.

Evaluation of student learning: Tests, assignments, class attendance and participation will be considered for the final grading. The breakdown of grading is:

60%= Objective Tests
20%= Final Exam
20%= Paper with Presentation

The paper will be submitted in the twelfth week on the date established at the beginning of the semester. It will be original, typed, and between 6-10 pages in length and of an appropriate college format. The topic must be approved by the instructor and the information will be shared with the class during an oral presentation on the assigned date.

Academic Integrity Statement:

A student who knowingly represents work of others as his/her own, uses or obtains unauthorized assistance in the execution of any academic work, or gives fraudulent assistance to another student is guilty of cheating. The penalty for violating the honor code is severe (see Student Handbook). Any student violating the honor code is subject to receive a failing grade for the course and will be reported to the Office of Student Affairs. If a student is unclear about whether a particular situation may constitute an honor code violation, the student should meet with the instructor to discuss the situation.

It is permissible to assist classmates in general discussions and such interaction is encouraged. Students must not work together on graded assignments unless it is a group assignment. A student may not use or copy (by any means) another's work or portions of it and represent it as his/her own.

NOTE:

- Students are required to take all tests on the date scheduled. No makeup tests will be permitted except for extremely serious circumstances.
- Students are expected to attend all of their classes. If a class is missed for any reason it is the student's responsibility to get any material, notes, handouts, announcements, etc.
- Students should be on time for class. If a student walks in late, it is expected that he/she enter the room quietly so that they do not disrupt the class meeting.
- Students are expected to follow ordinary rules of courtesy during class. Engaging in private conversation is distracting to the other students and to the instructor.
- Disruptive behavior of any kind is not appropriate and the instructor reserves the right to have a student leave if he/she interferes with the other students' right to receive instruction.
- Cell phones should be turned off during class time. They are a distraction and can disrupt the learning environment.
- Assignments will not be accepted after the due date. Assignments submitted early can be reviewed by the instructor and assistance with their revision is available to students.