

 FLGHT-102 Spring 2024 History of Aviation

**Instructor: Melissa Warner** **e-mail**:melissa.warner@reedleycollege.edu

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**CLASS LOCATION:** Woodlake High School/Online

**SCHEDULE:** MTWThF, Mar 18-May 17 1:30-2:30pm

 Hybrid Online (Canvas) and OnSite: Woodlake High School - Tue/Thurs

**CATALOG DESCRIPTION:** The Aviation History lecture course provides a historical view of aviation from the 1700's through the modern era. Some of the topics covered will include Early Aviation, The Wright Brothers, Early Flight, World War I, Peace Time Aviation, Golden Age of Aviation, World War II, Cold War, Space Age Aviation, and Modern Aerospace. 2 credits

**COURSE CONTENT:**

**Student Learning Outcomes:**

*Upon completion of this course, students will be able to:*

1. Analyze historically significant periods in aviation.
2. Evaluate technological advancements in aviation and their significance to the modern era. 3. Compare historical events in aviation and their impact on the current aviation industry.

**Objectives:**

*In the process of completing this course, students will:*

1. Assess the significance of the jet aircraft on the aviation industry.
2. Evaluate the significance of aviation on the modern world.
3. Identify historically significant persons in aviation.

**Lecture Content And \*Research Paper Topics:**

A. EarlyAviation,1783-1914
1. Invention of aviation 2.Balloons and dirigibles 3.Airships

B. TheWrightBrothers,1896-1914
1.Heavier than air 2.Wright brothers 3.Wright patent 4.Wright airplanes

C. EarlyFlight,1904-1914
1.Airplanes and airmen in Europe 2.American developments 3.Flying competitions 4.Aviation industry

D. WorldWarI,1914-1019
1.Airships 2.Dirigibles and balloons 3.Military airplanes 4.Aircraft production 5.Armistice and peace

E. PeacetimeAviation,1919-1927
1.Distance flying 2.Airships 3.Barnstorming and competing 4.Airlines and airmail

F. GoldenAge,1927-1939
1.Charles Lindbergh 2.Adventure and sport 3.Commercial airlines 4.Aviation radio 5.Military aviation

G. WorldWarII,1939-1945
1.Emergency and response 2.Military R&D 3.Western air war 4.Pacific air war

H. Cold War, 1945-1958
1.Resumption of civil aviation 2.Commercial aviation 3.Hot spots 4.Rockets & missiles

I. SpaceAgeAviation,1959-1989
1.Space race 2.Jet age 3.Cold war continues 4.Private & general aviation

J. ModernAerospace,1990-
1.General and commercial aviation 2.Military aerospace 3.Space exploration 4.Future of aviation.

Grading

1. Research Paper - 35% (35pts) Due May 19th, 2023

2. Final Exam - 30% (30pts)

3. Class Participation - 10% (10pts)

1. Project prototype : Build - Airfoil - 25% (25pts) AOPA Airfoil design provided.

Course Total 100% (100pts)

Grading Scale: 90% and above = A

80% and above = B 70% and above = C 60% and above = D Below 60% = F

Scores will not be rounded up - i.e. 89.99% = B

**\*Research Paper Requirements:**

1. APA Format, single space, 11pt Arial font, two pages. Reference page and Appendix citations are required.

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| **FLGHT 102 History of Aviation Schedule** |
|  | **SOURCE** | **TOPIC** | **Graded Items** |
| **WEEK 1 INTRO TO HISTORY OF AVIATION** |
| Wk1 | CANVAS  | Flight in Greek Mythology |  |
| Wk1 | CANVAS  | AOPA | Tue |
| Wk1 | CANVAS  | Canvas |  |
| Wk1 | CANVAS  | Canvas | Thurs |
| Wk1 | CANVAS  | Canvas |  |
| **WEEK 2 Balloon Systems** |
| Wk2 | CANVAS  | Hot Air and Gas Ballooning |  |
| Wk2 | CANVAS  | Discussion Hot air Ballooning | Tue |
| Wk2 | CANVAS  | History of Ballooning - Aeronauts - Amilia Wren |  |
| Wk2 | CANVAS  | Thurs - Airspace Review |
| Wk2 | CANVAS  | Airspace Review and Latitude Longitude location IDs |  |
| **WEEK 3 Gliders** |
| Wk3 | CANVAS  | Gliders |  |
| Wk3 | CANVAS  | Birds to Gliders | Tue |
| Wk3 | CANVAS  | Birds to Gliders Assignment |  |
| Wk3 | CANVAS  | Glider Flight and Early Innovations | Thurs |
| Wk3 | AOPA | **Airfoil Build - Download Instructions - PL** |  |
| **SPRING BREAK**  |
| **WEEK 4 “Wright Bros”** |
| Wk4 | CANVAS  | The “Wright Approach” |  |
| Wk4 | CANVAS  | The “Wright Approach” Assignment | Tue |
| Wk4 | CANVAS  | Wind Tunnel |  |
| Wk4 | CANVAS  | **Wind Tunnel** | **Thurs** |
| Wk4 | CANVAS  | **Airfoil Build** |  |
| **WEEK 5 Practical Applications of Airplanes, Commercial, Military** |
| Wk5 | CANVAS  | Beginnings of US Commercial Airline Service |  |
| Wk5 | CANVAS  | Aviation and WW1. | **Doolittle - Historical Artifacts** |
| Wk5 | CANVAS  | Airmail and Transcontinental Airway System  |
| Wk5 | CANVAS  | **Airfoil Build** | Thurs |
| Wk5 | CANVAS  | **Airfoil Build** |  |
|  **WEEK 6 Women in Aviation** |
| Wk6 | CANVAS  | First ALL Women pilots | Tue |
| Wk6 | CANVAS  | Women in Aviation - WW2 |  |
| Wk6 | CANVAS  | Women in Fighter Pilot roles - Aircraft Carrier Pilots |  |
| Wk6 | CANVAS  | Women in Aviation Business Commercial Aircraft Pilots | **Thurs** |
| Wk6 | CANVAS  | Future Aviation Women owned businesses |  |
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| **WEEK 7 Drone Practice** |
| Wk7 | CANVAS  | RC Quadcopter |  |
| Wk7 | CANVAS  | RC Quadcopter | Tue |
| Wk7 | CANVAS  | RC Quadcopter |  |
| Wk7 | CANVAS  | RC Quadcopter | Thurs |
| Wk7 | CANVAS  | RC Quadcopter |  |
| **WEEK 8 Drone Practice - Flight Command and Control**  |
| Wk8 | CANVAS  | Dji Drone |  |
| Wk8 | CANVAS  | Dji Drone | Tue |
| Wk8 | CANVAS  | Dji Drone |  |
| Wk8 | CANVAS  | Dji Drone |  |
| Wk8 | CANVAS  | Dji Drone | Thurs |
| **WEEK 9 Drone Practice - Flight Command and Control**  |  |  |  |
| Wk9 |  | Career Review - Dji Drone |  |
| Wk9 |  | Final Review | Tue |
| Wk9 |  | Final Review |  |
|  | **THURSDAY FINAL MAY 17, 2024** | **Thurs -FINAL EXAM - 30%** |
| **May 17, 2024 DUE - RESEARCH REPORT - 20%** |
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