

Note This Class has Monday Work!!

**August 8-12**

**Class Introduction and Orientation**

1. Teacher Introduction
2. Classroom and Learning Rules
3. Grading System
4. White Board and Cabinets Orientation
5. Chrome Books Sites we will use.
6. Classroom Contracts

**August 16-19**

**Unit 1**

- Pre-Course Exam
- Pre-Course Exam Review

**Section A**

- Lesson 1 Introduction to Aerospace Studies
- Lesson 2 Engineering Practices in Action-1

**August 23-26**

**Monday** Lesson 2 Engineering Practices in Action-2

Lesson 2 Engineering Practices in Action -3

Lesson 3 Aviation Careers Are For You!

**Section B** Overview of commercial, Military, and General Aviation.

- Lesson 1 Intro to Commercial Aviation
- Lesson 2 Intro to Military Aviation

**August 30-Sept 2**

Lesson 3 Intro to General Aviation

**Section C** Introduction to Unmanned Aircraft Systems

Lesson 1 UAS Fundamentals -1

Lesson 1 UAS Fundamentals -2

Lesson 2 UAS Operation and Safety

**Sept 6-9**

**Section D** Introduction to Space Exploration

Lesson 1 Current and Future Space Exploration-1

Lesson 1 Current and Future Space Exploration-2

Lesson 1 Current and Future Space Exploration-3

**\*\*\*\*Quarter Quiz\*\*\*\***

**Sept 13-16**

**Unit 2** Taking Flight - Early Aviation Innovations

**Section A** - Aviation's Primitive Beginnings

**Monday** Lesson 1 Flight in Greek Mythology

Lesson 2 Da Vinci and His Flying Machines -1

Lesson 2 Da Vinci and His Flying Machines -2

**Section B** - Lighter Than Air

Lesson 1 Hot Air and Gas Ballooning -1

Lesson 1 Hot Air and Gas Ballooning -2

**Sept 20-23 --Grades Go In**

**Monday** Lesson 1 Hot Air and Gas Ballooning -3

Lesson 1 Hot Air and Gas Ballooning -4

**Section C** - Gliders

Lesson 1 From Birds to Gliders

Lesson 2 Glider flight and Early Innovators-1

Lesson 2 Glider flight and Early Innovators-2

**Break Sept 26-30**

**Oct 4-7**

**Monday** Lesson 2 Glider flight and Early Innovators-3

**Section D** - Powered, Controlled Flight

Lesson 1 The "Wright" Approach-1

Lesson 1 The "Wright" Approach-2

Lesson 2 Build and Test a Wind Tunnel -1

Lesson 2 Build and Test a Wind Tunnel -2

**Oct 11-14**

**Monday** Lesson 2 Build and Test a Wind Tunnel -3

Lesson 2 Build and Test a Wind Tunnel -4

Lesson 2 Build and Test a Wind Tunnel -5

Lesson 2 Build and Test a Wind Tunnel -6

Lesson 3 The "Wright Attitude"

**Oct 18-21**

**Unit 2 Exam**

**Unit 3 begin**

**Section A** - First Practical Applications of Airplanes, Commercial and Military.

Lesson 1 Beginnings of U.S. Commercial Airline Service

Lesson 2 Aviation and World War 1 -1

Lesson 2 Aviation and World War 1 -2

**Oct 24-28**

**Monday** Lesson 3 Airmail and the Transcontinental Airway System

**Section B** - Women in Early Aviation

Lesson 1 Women in Early Aviation-1

Lesson 1 Women in Early Aviation-2

**Section C** - World War II

Lesson 1 Aviation Innovation and World War II -1

Lesson 1 Aviation Innovation and World War II -2

**Nov 1-4**

**Monday** Lesson 1 Aviation Innovation and World War II -3

Lesson 2 One for all , all for one - 1

Lesson 2 One for all , all for one - 2

**Unit 3 Exam**

**Unit 4**

Lesson 1 Development of the Jet Engine -1

Lesson 1 Development of the Jet Engine -2

**Nov 8-10 No School 11th**

Lesson 1 Development of the Jet Engine -3

Lesson 2 Commercial Air Travel -1

Lesson 2 Commercial Air Travel -2

**Section B** - The Space Race

Lesson 1 The Space Race Begins

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**Nov 15-18**

**Monday** Lesson 2 To the Moon -1  
Lesson 2 To the Moon -2  
Lesson 2 To the Moon -3  
Lesson 3 The Space Race Winds Down -1  
Lesson 4 The Shuttle Program -1

**\*\*\*Thanks Giving Break Nove 20-24\*\*\***

**Nov 28-Dec 2**

Lesson 4 The Shuttle Program -2

**Unit 4 Exam-**

**Unit 5:** Creating the Future—What’s New and Next in Aviation and Aerospace

**Section A** – Modern Aircraft Design  
Lesson 1 Fly-by-Wire and “Glass” Cockpits\*  
Lesson 2 Aircraft Navigation

**Dec 6-9**

**Monday** Lesson 3 Composites and Structures  
**Section B** – Government and Commercial Space  
Lesson 1 Government and Commercial Space  
**Section C** – End of Semester Project  
Lesson 1 End of Semester Project -1  
Lesson 1 End of Semester Project -2  
Lesson 1 End of Semester Project -3

**Dec 13-16**

Lesson 1 End of Semester Project -4  
Lesson 1 End of Semester Project -5

**Unit 5 Exam Review**

**Unit 5 Exam --Grades Go In**

**\*\*\*Winter Break Dec 19- Jan 6\*\*\***

**SECOND SEMESTER**

**Jan 10-13**

Pre-Course Exam

**Section A** - Role of Government in Aviation Safety  
Lesson 1 Fundamentals of Aviation Safety -1  
Lesson 1 Fundamentals of Aviation Safety -2  
Lesson 2 The Federal Aviation Administration-1

**Jan 17-20**

Lesson 2 The Federal Aviation Administration-2  
**Section B** - Accident Investigation  
Lesson 1 The Investigative Process -1  
Lesson 1 The Investigative Process -2  
Lesson 1 The Investigative Process -3

**Jan 24-27**

Lesson 2 Accident Case Study -1  
Lesson 2 Accident Case Study -2  
Lesson 2 Accident Case Study -3  
**Section C** Aviation Weather Services  
Lesson 1 Aviation Weather Reports and Forecasting -1

**Jan 31 - Feb 3**

Lesson 1 Aviation Weather Reports and Forecasting -2  
**Unit 6 Exam**  
**Unit 7: Exploring Careers in Aviation and Aerospace**  
**Section A** - Flying  
Lesson 1 Flying Aircraft and Drones -1

**Feb 7-10**

Lesson 1 Flying Aircraft and Drones -2  
Lesson 1 Flying Aircraft and Drones -3  
Lesson 1 Flying Aircraft and Drones -4  
**Section B** – Engineering  
Lesson 1 Becoming an Aerospace Engineer -1

**Feb 14-17 ---Grades Go In**

Lesson 1 Becoming an Aerospace Engineer -2  
**Section C** – Other Great Aviation Careers  
Lesson 1 Becoming an Air Traffic Controller-1  
Lesson 1 Becoming an Air Traffic Controller-2  
Lesson 2 Becoming an Aircraft Mechanic

**Unit 7 Exam**

**\*\*\*No School Feb 20-24\*\*\***

**Feb 28-Mar 3**

**Unit 8:** Aviation Innovation and Problem Solving  
Lesson 1 Reducing Aviation’s Environmental Impact-1  
Lesson 1 Reducing Aviation’s Environmental Impact-2  
Lesson 1 Reducing Aviation’s Environmental Impact-3  
**Section B** – Modernizing Airspace  
Lesson 1 Next Generation Air Transportation System

**Mar 7-10**

Lesson 2 Integrating Drones-1  
Lesson 2 Integrating Drones-2  
Lesson 2 Integrating Drones-3  
**Section C** – Future Aircraft  
Lesson 1 Supersonic Aircraft-1

**Mar 14-17**

Lesson 1 Supersonic Aircraft-2  
Lesson 1 Supersonic Aircraft-3  
Lesson 2 Autonomous Aircraft -1  
Lesson 2 Autonomous Aircraft -2

**Mar 21-24**

Lesson 2 Autonomous Aircraft -3  
Lesson 3 Electric Aircraft-1  
Lesson 3 Electric Aircraft-2  
**Section D** – Future Space Travel  
Lesson 1 Colonizing Space-1

**Mar 28-31**

Lesson 1 Colonizing Space-2  
Lesson 1 Colonizing Space-3  
**Unit 8 Exam**

Note This Class has Monday Work!!

**April 4-6 no school on 7th**

**Unit 9: Innovation Challenge**

**Section A – “Peep Odyssey”**

Lesson 1 “Peep Odyssey” Innovation Challenge-1  
Lesson 1 “Peep Odyssey” Innovation Challenge-2  
Lesson 1 “Peep Odyssey” Innovation Challenge-3  
Lesson 1 “Peep Odyssey” Innovation Challenge-4

**April 18-21**

Lesson 1 “Peep Odyssey” Innovation Challenge-5  
Lesson 1 “Peep Odyssey” Innovation Challenge-6  
Lesson 1 “Peep Odyssey” Innovation Challenge-7  
Lesson 1 “Peep Odyssey” Innovation Challenge-8

\*\*\*NO School **April 11 -14 Easter\*\*\***

**April 25-28**

**Unit 10:** Thinking About a Career in Aviation

Lesson 1 Developing a Mission Statement\*-1  
Lesson 1 Developing a Mission Statement\*-2  
Lesson 2 Investigating Education Options After High  
school\*-1  
Lesson 2 Investigating Education Options After High  
school\*-2

**May 2-5**

**Section B – Developing Professionalism**

Lesson 1 Professional Skills and Conduct\*-1  
Lesson 1 Professional Skills and Conduct\*-2  
Lesson 2 Building Communication Skills\*-1  
Lesson 2 Building Communication Skills\*-2

**May 9-12**

Lesson 1 Building a Career Portfolio-1  
Lesson 2 Looking at FTL -1  
Lesson 2 Looking at FTL -2  
Lesson 2 Looking at FTL -3

**May 16-19**

Lesson 1 Building a Career Portfolio-1  
Lesson 1 Building a Career Portfolio-2  
Lesson 1 Building a Career Portfolio-3  
Lesson 1 Building a Career Portfolio-4  
Lesson 1 Building a Career Portfolio-5

**May 23-26**

\*\*\*\*\*Unit 10 Exam\*\*\*\*\*

\*\*\*\*\*Post Course Exam\*\*\*\*\*

**May 30 - June 2**

**Reflection**