12th Grade Aviation STEM Curriculum Materials – Semester 1: PILOT

Unit 1 - Advanced Aviation
Lesson 1.A.2 Attitude Instrument Flying, Lesson 1.A.5 Flying on Instruments, and Lesson 1.B.1 What is a Commercial Pilot Certificate?

Flight Simulation Activity
- Computer with flight simulation software or flight simulator
- Joystick or yoke
- Optional: Throttle quadrant, rudder pedals, additional monitors

Lesson 1.A.4 Getting Down With Approaches
Flight Simulation Activity
- A flight simulator capable of producing a reduced- or zero-visibility condition

Lesson 1.C.2 Understanding Advanced Systems
Group Activity
- 1 Internet-connected computer or mobile device (per group)
- Access to a printer
- 1 two-pocket folder (per student)
- Craft supplies (per group): e.g.,
- 1 poster board
- 1 bottle of glue
- 1 set of colored markers
- Additional materials as needed
Unit 2 - The Future of Aviation
Lesson 2.B.1 Aviation Innovations Big and Small
• Post-it Notes (5-10 per student)

Unit 3 - The Business of Aviation
Lesson 3.A.1 Aviation Business Entrepreneurs
• Flip chart or poster board
• Flip chart markers (assorted colors)

Unit 4 - Aviation Research Projects
Lesson 4.A.1 Choosing a Research Topic
Choosing a Research Topic Activity (per student)
If creating a physical (print) research portfolio:
• 1 three-ring binder
• 1 folder
• 1 packet of dividers

Lesson 4.A.4 Literature Review
Student Activity 1
• Envelopes
• Clear tape

For many lessons, an internet-connected computer or mobile device is also required.