

DATES	DESCRIPTION	DAILY OBJECTIVES
8/14-21	Familiarize students with classroom procedures UAS/Drones History	Introduction, Icebreakers, assign seating, classroom procedures, emergency preparedness, discuss drone history, drone safety, and discuss class goals.
8/21-25	Learn safety procedures when handling and flying drones and become familiar with certificates and careers available in the drone industry	Students will be assigned to flight crews(teams), we will re-visit available certifications, students will practice and take the FAA TRUST test. Drone safety will be discussed and students will demonstrate knowledge of drone safety
8/28-9/1	Learn regulations about drone safety, accidents, and faa registration	Students will learn flight restrictions, appropriate/inappropriate flight locations, and what to do in case of property damage
9/4-9/8	Practice flight crew member responsibilities, practice flight maneuvers	9/4 - Labor Day (No School) Students will practice various crew member roles, and participate in learning flight maneuvers
9/11-9/15	Understanding Principles of Flight	Students will identify the structure of an aircraft, explaining the forces of flight, and explain the characteristics of roll, pitch, yaw, and lift.
9/18-9/122	Understanding propulsion, power, and types of control	Students will compare types of propulsion, discuss types of batteries, and learn the function of propellers
9/25-9/29	Understanding types of control	Students will fly drones to understand various levels of operator vs. computer control, and classify communication methods

10/2-10/6	Execute pre-and-post flight operations, and learn FAA Part 107 terminology	Students will learn what actions should be taken prior to and after a flight, and students will start using words and definitions found on the FAA Part 107 test
10/9-10/13	Execute in flight operations and FAA Part 107 terminology	Students will re-visit the roles of an UAS flight crew
10/16-10/20	Execute in flight operations and FAA Part 107 terminology	10/20 - PD Day (No Students) Students will learn various stages of flight: take off, flight, return-to-home, and landing
10/23-10/27	Execute appropriate responses to in-flight scenarios	Students will learn how to respond to loss of transmission and loss of visual-line-of-sight
10/30-11/3	Review current regulations and industry applications	Students will review federal, state, and local regulations Students will examine careers related to UAS operations
11/6-11/10	Understanding aeronautical principles	Students will learn classified airspace, read sectional charts, and explore airport procedures
11/13-11/17	Understanding weather reports and the impact of weather	Students will interpret weather reports and explain how it impacts UAS drone operations
11/20-11/24		Thanksgiving Break

11/27-12/1	Radio communications and emergency procedures	Students will demonstrate proper radio communication and emergency procedures
12/4-12/8	Digital design and manufacturing	Students will learn about digital manufacturing, design a 3-d model, print a 3-d model, and print a UAS drone 3-d component
12/11-12/15	Execute a drone mission	Students will plan, design and execute UAS flight mission
12/18-1/1/24		Winter Break
1/2-1/5	Apex Drones	1/2 - PD Day (No Students) We will assess and possibly re-assign seating Students will help label new Apex Drones Students will assist in the creation of a Drone sign-out sheet. Students will practice flying new Apex Drones.
1/8-1/12	Review basic flight controls	Students will review the parts of a drone and perform basic flight maneuvers using Activity 1 in the Pitsco handbook.
1/15-1/19	Advanced Flight Controls	1/15 - MLK Day (No School) Students will practice advanced flight controls utilizing Activity 2 found in the Pitsco handbook
1/22-1/26	Soldering	We will discuss soldering safety and review soldering techniques Students will solder to wires together Students will solder wires to circuit board
1/29-2/2	Airspace Classification	We will discuss airspace classification. Students will schedule an UAS flight utilizing the LAANC system.

2/5-2/9	Navigating Obstacles Drone Competition	Students will learn to navigate obstacles utilizing Apex drones and activity labeled, "Navigating Various Obstacles" found in the Pitsco handbook. Students will also participate in a competition.
2/12-2/16	No Fly Zone	Students will fly Apex Drones utilizing activity #4 in the Pitsco handbook labelled, "No Fly Zone".
2/19-2/23	Can we fix it? YES WE CAN!	2/19 - Presidents' Day (No School) Students will learn how to perform calibration, maintenance, and repair procedures on various drones.
2/26-3/4	Picture Perfect	Students will learn basic and photography/videography maneuvers utilizing Activity #5 labeled, "Picture Perfect" in the Pitsco Handbook.
3/11-3/15	Going Thermal	Students will learn about thermal imaging and processing, utilizing thermal drones.
3/18-3/22		Spring Break
3/25-3/29	Drone On A Mission	Students will learn to use waypoints to fly a pre-determined mission.
4/1-4/5	NEACTC Drone Factory	Students will review drone components and assemble a drone. Students will then fly their assembled drones.
4/8-4/12	BVLOS	Students will practice flying drones beyond visual line of sight utilizing activity #6 in the Pitsco handbook labeled, "Beyond Visual Line of Sight". Students will then participate in a competition.
4/15-4/19	Traffic Jam	4/15 - SkillsUSA Arkansas Leadership Conference Hot Springs, AR 4/16 - SkillsUSA Arkansas Leadership Conference Hot Springs, AR 4/17 - SkillsUSA Arkansas Leadership Conference Hot Springs, AR Students will practice documenting traffic patterns utilizing Activity #7 labeled, "Traffic Jam" in the Pitsco Handbook.

4/22-4/26	Somebody Check the Breaker!	Students will simulate checking a power grid outage utilizing Activity #8 in the Pitsco Handbook.
4/29-5/3	It's Map Time	Students will learn about surveying and mapping careers and practice mapping utilizing Activity #9 in the Pitsco handbook. Students will participate in a competition.
5/6-5/10	Wildlife	Students will practice getting an account of all wildlife in a designated area with photographs or video utilizing Activity #10 in the Pitsco handbook.
5/13-5/17	Off To The Races	Students will practice racing drones and participate in a competition utilizing Activity #12 in the Pitsco handbook.
5/20-5/24	Disaster Strikes	Students will learn to access the scene of a disaster and identify all the hazards on the scene utilizing Activity #12 in the Pitsco Handbook.
5/27-5/31	Help Is On The Way!	5/27 - Memorial Day (No Students) Students will participate in a disaster simulation competition.