

UAS Remote Pilot Certification (FAA Part 107 Training)



Order	Lesson Name	Goals
1	Pathway to Certification: Regulating Airspace	<ol style="list-style-type: none"> 1. To understand the need for regulating airspace. 2. To analyze the NTSB's roles in transportation. 3. To understand how the FAA regulates drone aviation.
2	Pathway to Certification: Recreational & Commercial Use	<ol style="list-style-type: none"> 1. To define recreational use of sUAS. 2. To analyze the safety guidelines for sUAS recreational users.
3	Pathway to Certification: A Closer Look at Part 107 Certification	<ol style="list-style-type: none"> 1. To analyze the Part 107 certificate. 2. To define the reason behind not needing a pilot's licenses. 3. To understand the Aeronautical Knowledge Test.
4	Pathway to Certification: Current Uses & Future Potential	<ol style="list-style-type: none"> 1. To identify how hobby drone usage has increased. 2. To analyze how drones are used for racing. 3. To analyze drone usage within the commercial industry.
5	Pathway to Certification: Final Assessment	<ol style="list-style-type: none"> 1. To assess knowledge regarding pathway to certification.
6	Drone Theory & Aeronautical Basics: Drone Summary	<ol style="list-style-type: none"> 1. To define what a drone is. 2. To analyze the different types of UAVs.
7	Drone Theory & Aeronautical Basics: Drone Components	<ol style="list-style-type: none"> 1. To define each component of a drone. 2. To analyze how each drone component functions. 3. To understand the importance of each drone component.
8	Drone Theory & Aeronautical Basics: Aerodynamics & Newton's Laws of Motion	<ol style="list-style-type: none"> 1. To define aerodynamics. 2. To analyze Newton's Laws of Force and Motion. 3. To understand the Bernoulli's Principle. 4. To define an airfoil.
9	Drone Theory & Aeronautical Basics: The Four Forces of Flight	<ol style="list-style-type: none"> 1. To understand the four forces of flight.
10	Drone Theory & Aeronautical Basics: Mechanical Design Airplane & Three Axes of Flight	<ol style="list-style-type: none"> 1. To analyze the mechanical design of an airplane. 2. To define the three axes of flight.

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11	Drone Theory & Aeronautical Basics: How Multicopters Fly	<ol style="list-style-type: none"> 1. To analyze how multicopters fly. 2. To define the pilot's alphabet.
12	Drone Theory & Aeronautical Basics: Final Assessment	<ol style="list-style-type: none"> 1. To assess knowledge regarding drone theory and aeronautical basics.
13	Reg & Op Rules: Eligibility for Part 107 Certification	<ol style="list-style-type: none"> 1. To analyze the eligibility requirements for Part 107 Certification.
14	Reg & Op Rules: FAA Definitions Pertaining to Part 107	<ol style="list-style-type: none"> 1. To analyze various definitions pertaining to Part 107. To define the responsibilities of a remote PIC.
15	Reg & Op Rules: Documentation for Flight & Registration Requirements	<ol style="list-style-type: none"> 1. To analyze the required documents for sUAS flight. 2. To examine the importance of documentation. 3. To analyze the registration requirements for sUAS operations. 4. To understand the special rule relating to model aircraft requirements. 5. To understand the purpose of a remote ID.
16	Reg & Op Rules: Daylight Operation Regulations & Visual-Line-of-Sight	<ol style="list-style-type: none"> 1. To analyze the Part 107 daylight operation regulations. 2. To understand visual-line-of-sight.
17	Reg & Op Rules: Requirements for Flight	<ol style="list-style-type: none"> 1. To analyze requirements for visibility, cloud clearance, altitude and speed. 2. To understand the yielding to the right-of-way. 3. To analyze to requirements for operations over nonparticipants.
18	Reg & Op Rules: On The Move & Privacy Considerations	<ol style="list-style-type: none"> 1. To understand the regulations in place for flying a drone from a moving vehicle or a water-borne vehicle. 2. To analyze privacy considerations. 3. To understand regulations for drone flight over stadiums and concert venues.
19	Reg & Op Rules: Hazardous Operations & Change of Address	<ol style="list-style-type: none"> 1. To analyze hazardous operations. 2. To define the regulations for alcohol and drug use while flying a drone. 3. To understand the requirements of a drone pilot if their address is changed.
20	Reg & Op Rules: Authorizations & Operation	<ol style="list-style-type: none"> 1. To analyze authorization and operation near airports. 2. To understand waivers and authorizations. 3. To examine potential knowledge test questions pertaining to authorization and operation.

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21	Reg & Op Rules: Final Assessment	1. To assess knowledge regarding reg and op rules.
22	Airspace Classifications & Operating Requirements: Airspace Designations	1. To understand airspace designations. 2. To analyze airspace classifications. 3. To analyze resources which are critical for remote PICs.
23	Airspace Classification & Operating Requirements: Notices to Airmen & Temp Flight Rest	1. To analyze Notices to Airmen. 2. To define temporary flight restrictions.
24	Airspace Classification & Operating Requirements: Aero Sect Chts & Class of Airspace	1. To analyze aeronautical sectional charts. 2. To discuss the different airspace classifications.
25	Airspace Class & Op Requirements: AGL, MSL, Military Training Rts & Airspace	1. To define the different in above ground level and mean sea level. 2. To analyze military training routes.
26	Airspace Classifications & Operating Requirements: Final Assessment	1. To assess knowledge regarding airspace classifications and operating requirements.
27	Aviation Weather, Effects & Sources: Weather & Time Zones	1. To analyze the influences of weather on flight. 2. To define military and ZULU time.
28	Aviation Weather, Effects & Sources: METARs & TAFs	1. To define METARs and TAFs. 2. To decode a METAR and a TAF. 3. To analyze the information a METAR provides to a pilot.
29	Aviation Weather, Effects & Sources: Weather Briefs & Stable vs. Unstable Air	1. To define the components of a weather brief. 2. To define stable and unstable air.
30	Aviation Weather, Effects & Sources: Wind, Friction, Masses, Fronts & Wthr Forms	1. To analyze the components of wind and surface friction. 2. To understand air masses and fronts. 3. To define the four fog types. 4. To understand how clouds are classified. 5. To analyze cloud composition and appearance.
31	Aviation Weather, Effects & Sources: Thunderstorms, Visibility & Clouds	1. To analyze the various types of thunderstorms. 2. To understand how visibility and clouds impact flight.
32	Aviation Weather, Effects & Sources: The Knowledge Test & Weather Factors	1. To decode various METARs. 2. To analyze the weather conditions which affect flight.

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33	Aviation Weather, Effects & Sources: Final Assessment	1. To assess knowledge regarding aviation weather, effects and sources.
34	sUAS Loading & Performance: Stability, Payloads, Speed & Altitude	1. To define aeronautical stability. 2. To understand how to fly with a payload. 3. To determine speed and altitude.
35	sUAS Loading & Performance: Weight/Balance & Performance Factors	1. To define weight and balance. 2. To analyze uncontrollable performance factors.
36	sUAS Loading & Performance: Load Factors & Angle of Attack	1. To analyze load factors applied to physics. 3. To avoid superseding the critical Angle of Attack.
37	sUAS Loading & Performance: Center of Gravity & Endurance/Range	1. To understand the basic Center of Gravity performance. 2. To define launch considerations. 3. To understand the effect of runway slopes.
38	sUAS Loading & Performance: Final Assessment	1. To assess knowledge regarding sUAS loading and performance.
39	Emergency Flight Procedures: Lost Link & FlyAway Procedures	1. To understand lost link procedures. 2. To understand fly-away procedures.
40	Emergency Flight Procedures: Battery Fire Procedures & Accidents	1. To understand battery fire procedures. 2. To analyze how to report accidents. 3. To understand how to avoid collision.
41	Emergency Flight Procedures: Final Assessment	1. To assess knowledge regarding emergency flight procedures.
42	Crew Resource Management (CRM): Decision-Making, CRM Effectiveness & Hazardous Attitudes	1. To understand aeronautical decision-making a judgement. 2. To analyze CRM effectiveness. 3. To define the five hazardous attitudes.
43	Crew Resource Management (CRM): Physiological & Medical Factors	1. To understand physiological and medical factors which impact drone flight.
44	Crew Resource Management (CRM): Contingency Reactions	1. To understand contingency reactions.

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45	Crew Resource Management (CRM): Final Assessment	1. To assess knowledge regarding crew resource management (CRM).
46	Radio Communications: Proper Radio Procedures	<ol style="list-style-type: none"> 1. To understand proper radio procedures. 2. To analyze radio technique tips. 3. To define several contact procedures. 4. To analyze airport operations without an operating control tower.
47	Radio Communications: Chart Supplements, Sectional Chart Frequencies & Making Reports	<ol style="list-style-type: none"> 1. To analyze Chart Supplements U.S. 2. To understand sectional frequencies. 3. To analyze how to make position reports as a Remote PIC.
48	Radio Communications: Final Assessment	1. To assess knowledge regarding radio communications.
49	Airport Operations: NOTAMs & TFRs	<ol style="list-style-type: none"> 1. To understand NOTAMs and TFRs. 2. To analyze how to find NOTAMs and TFRs.
50	Airport Operations: Obstacles & AGL VS. MSL	<ol style="list-style-type: none"> 1. To analyze mountains, towers and power lines. 2. To define AGL and MSL.
51	Airport Operations: Airport Traffic Patterns, Flight Frequencies & Best Practices	<ol style="list-style-type: none"> 1. To understand airport traffic patterns. 2. To analyze sUAS flight frequencies. 3. To define the best practices document.
52	Airport Operations: VFR Sectional Chart Symbols	1. To analyze various VFR sectional chart symbols.
53	Airport Operations: Longitude/Latitude & NM/SM	<ol style="list-style-type: none"> 1. To understand longitude and latitude. 2. To define statute and nautical miles.
54	Airport Operations: Final Assessment	1. To assess knowledge regarding airport operations.
55	Maintenance & Inspection Procedures: Inspection	<ol style="list-style-type: none"> 1. To understand the actions to take before flying a drone. 2. To analyze what should be included within a preflight inspection.

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56	Maintenance & Inspection Procedures: Maintenance	1. To understand the scheduled and unscheduled drone maintenance procedures.
57	Maintenance & Inspection Procedures: Record Keeping	1. To understand the benefit of record keeping. 2. To analyze the components of a sUAS which needs to be analyzed for the record keeping procedures.
58	Maintenance & Inspection Procedures: Final Assessment	1. To assess knowledge regarding maintenance and inspection procedures.
59	FAA Aeronautical Knowledge Test Review	1. To analyze information regarding the Aeronautical Knowledge Test. 2. To review questions which could potentially be on the Aeronautical Knowledge Test.