

DRONE TECHNOLOGIES 1
COURSE CODE: 57T1
STUDENT PROFILE

STUDENT'S NAME:		TEACHER'S NAME:			
School Year/Semester:		Grade:			
Begin Date:		Date Completed:			
<p>Directions: Document student's progress using the applicable rating scales below: Enter date of completion under the appropriate column.</p> <p>0 - Requires additional instruction and or close supervision (60-69) 1 – Has not received instruction in this area / no experience or knowledge of this task (N/A) 2 – Can perform the task completely with limited supervision (70-79) 3 – Can apply and perform independently (80-100)</p>					
A. THE FAA PART 107 LICENSE		0	1	2	3
1	Describe the types of driver's license and driver's permits.				
2	Identify and analyze licensing requirements.				
3	Research and present required non-commercial license tests.				
4	Identify situations that may result in loss of driving privileges.				
5	Describe the types of driver's license and driver's permits.				
6	Identify and analyze licensing requirements.				
7	Research and present required non-commercial license tests.				
B. STATE LAWS		0	1	2	3
1	Research state laws regarding licensing and flying privileges.				
2	Compare and contrast State laws and Federal Laws.				
C. PHYSICAL AND MENTAL THINKING WHILE PILOTING A DRONE		0	1	2	3
1	Analyze key facts which can affect each of the following: a. vision b. fatigue c. distraction d. aggressive flying e. emotions				

2	Research and explain the consequences of using alcohol and drugs while flying.				
3	Explain how physical and mental fitness affects flying performance.				
D. FLYING PREPARATION (FAA Part 107 Training)		0	1	2	3
1	Demonstrate the proper inspection procedure prior to operating a UAS.				
2	Demonstrate proper pilot staging area.				
3	Understand the need to regulate airspace.				
4	Analyze the safety guidelines for sUAS recreational users.				
5	Define the reason behind not needing a pilot's license.				
6	Analyze drone usage within the commercial industry.				
7	Discuss the different types of UAVs.				
8	Define each component of a drone.				
9	Analyze how each drone component functions.				
10	Understand the importance of each drone component.				
11	Define aerodynamics.				
12	Analyze Newton's Laws of Force and Motion.				
13	Understand Bernoulli's Principle.				
14	Define an airfoil.				
15	Understand the four forces of flight.				
16	Analyze the mechanical design of an airplane.				
17	Define the three axes of flight.				
18	Analyze how multicopters fly.				
19	Define the pilot's alphabet.				
20	Assess knowledge regarding drone theory and Certification.				
21	Analyze various definitions pertaining to Part 107.				
22	Define the responsibilities of a remote PIC.				
23	Analyze the required documents for sUAS flight.				
24	Analyze the registration requirements for sUAS operations.				
25	Understand the purpose of a remote ID.				
26	Analyze the Part 107 daylight operation regulations.				
27	Understand visual-line-of-sight.				

28	Analyze requirements for visibility, cloud clearance, altitude and speed.				
29	Understand the yielding the right-of-way.				
30	Analyze requirements for operations over non-participants.				
31	Understand the regulations in place for flying a drone from a moving vehicle or a water-borne vehicle.				
32	Understand regulations for drone flights over stadiums and concert venues.				
33	Analyze hazardous operations.				
34	Analyze authorization and operation near airports.				
35	Understand waivers and authorizations.				
36	Understand airspace designations.				
37	Analyze airspace classifications.				
38	Analyze resources which are critical for remote PICs.				
39	Analyze Notices Airmen.				
40	Define temporary flight restrictions.				
41	Analyze aeronautical sectional charts.				
42	Define the difference in above ground level and mean sea level.				
43	Analyze military training routes.				
44	Analyze the influences of weather on flight.				
45	Define military and ZULU time.				
46	Define METARs and TAFs.				
47	Decode a METAR and a TAF.				
48	Analyze the information a METAR provides a pilot.				
49	Define the components of a weather brief.				
50	Define stable and unstable air.				
51	Analyze the components of wind and surface friction.				
52	Understand air masses and fronts.				
53	Define the four fog types.				
54	Understand how clouds are classified.				
55	Analyze cloud composition and appearance.				
56	Analyze the various types of thunder.				
57	Understand how visibility and clouds impact flight.				
58	Decode various METARs.				
59	Analyze the weather conditions which affect flight.				
60	Assess knowledge regarding aviation weather, effects				

	and sources.				
61	Define aeronautical stability.				
62	Understand how to fly with a payload.				
63	Determine speed and altitude.				
64	Define weight and balance.				
65	Analyze uncontrollable performance factors.				
66	Analyze load factors applied physics.				
67	Avoid superseding the critical Angle of Attack.				
68	Understand the basic Center of Gravity performance.				
69	Define launch considerations.				
70	Understand the effect of runway slopes.				
71	Assess knowledge regarding sUAS loading and performance.				
72	Understand lost link procedures.				
73	Understand fly-away procedures.				
74	Understand battery fire procedures.				
75	Analyze how to report accidents.				
76	Understand how to avoid collision.				
77	Assess knowledge regarding emergency flight procedures.				
78	Understand aeronautical decision-making a judgement.				
79	Analyze CRM effectiveness.				
80	Define the five hazardous attitudes.				
81	Understand contingency reactions.				
82	Assess knowledge regarding crew resources.				
83	Management (CRM).				
84	Understand proper radio procedures and analyze radio technique tips.				
85	Define several contact procedures.				
86	Analyze Chart Supplements U.S.				
87	Understand sectional frequencies.				
88	Analyze how to make position reports as a Remote PIC.				
89	Understand NOTAMs and TFRs.				
90	Analyze how to find NOTAMs and TFRs.				
91	Analyze mountains, towers and power lines.				
92	Define AGL and MSL.				

93	Understand airport traffic patterns.				
94	Analyze sUAS flight frequencies.				
95	Analyze various VFR sectional chart symbols.				
96	Understand longitude and latitude.				
97	Define statute and nautical miles.				
98	Assess knowledge regarding airport operations.				