

**DRONE TECHNOLOGIES 3**  
**COURSE CODE: 57T3**  
**STUDENT PROFILE**

<b>STUDENT'S NAME:</b>	<b>TEACHER'S NAME:</b>
<b>School Year/Semester:</b>	<b>Grade:</b>
<b>Begin Date:</b>	<b>Date Completed:</b>

**Directions:** Document student's progress using the applicable rating scales below: Enter date of completion under the appropriate column.

- 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)**

A. BASIC / ADVANCED DRONE FLIGHT		0	1	2	3
1	Define aerodynamics.				
2	Discuss the history of flight.				
3	Define Newton's Laws of Force and Motion.				
4	Analyze how Newton's Laws of Force and Motion apply to airplanes and drones.				
5	Identify how Bernoulli's Principle expanded on Newton's				
6	Differentiate between the Laws of Force and Motion.				
7	Define the three axes of flight.				
8	Understand airspace regulations.				
9	To define the different classes of airspace.				
10	Analyze controlled versus uncontrolled airspace.				
11	Analyze the equation for nautical and statute miles.				
12	Define different weather factors for drone flight.				
13	Define pilot-in-command and remote-pilot-in-command.				
14	Analyze the four forces of flight.				
15	Identify the three important control surfaces involved in the mechanical design of an airplane.				
16	Analyze how multicopters fly.				
17	Define how vectors are applied to flight characteristics.				
18	Understand how to calculate values of combined maneuvers.				
19	Assess knowledge regarding basics of flight.				
20	Analyze beneficial first drones for beginners.				

21	Understand how to work with lightweight drones.				
22	Define propeller awareness and safety assurances.				
23	Understand the basics of a controller.				
24	Define the two modes.				
25	Understand maneuvering terminology.				
26	Analyze flight modes in advanced sUAVs.				
27	Analyze tasks to complete before flying.				
28	Define and explain the four beginning flight skills.				
29	Assess knowledge regarding beginning flight skills.				
30	Understand how to achieve advanced flight skills.				
31	Identify the advanced flight skills to accomplish.				
32	Assess knowledge regarding advanced flight skills.				
33	Analyze how to be responsible as an operator.				
34	Analyze regulations for drone use.				
35	Understand fly zones versus notify zones.				
36	Understand the drone registering process.				
37	Identify understand weather conditions to not fly in.				
38	Understand safe flight clearance and safe flying locations.				
39	Define recreational use.				
40	Analyze the safety guidelines for sUAS recreational users.				
41	Understand the type of drone needed based on the purpose.				
42	Analyze configuration suggestions.				
43	Determine the advantages and disadvantages of building versus buying.				
44	Assess knowledge regarding common sense flying.				
45	Understand the commonality of drones.				
46	Analyze drone maintenance not required by the FAA but recommended by experts.				
47	Understand how to create a pre-flight checklist.				
48	Understand how to log flights.				
49	Analyze how to document logs.				
50	Understand lithium polymer battery care and maintenance.				
51	Analyze charging tips.				
52	Define accurate charging temperatures and rates.				
53	Define battery puffing.				
54	Assess knowledge regarding maintenance and battery care.				