



DRONE 101 B

15 -20 years old

This course will prepare students with basic drone flying skills & knowledge. Promotes awareness of what the application of drones in daily life and job.

Lectures

6

Module 1 Introduction of UAV

- 1.1 - What is drone and UAV
- 1.2 - Types of drones (Quadcopter, Multirotors)
 - * Short Videos of different kind drone being used in daily life

Module 2 Basic Principles of Flight

- 2.1 - Newton's third law, principle of flight, physical forces
- 2.2 - Maneuvering of Quadcopter – Orientation (Throttle, Pitch, Roll, Yaw)
- 2.3 - Axis in drones

Module 3 Drone Parts and Components (Intermediate)

- 3.1 - Physical features of drones (basic parts – body, propeller, battery, remote etc.)
- 3.2 - Basic battery care (charging, storage and discharged)
- 3.3 - Basic drone system components and its function (ESC, GPS, Flight Controller)
- 3.4 - GPS system and frequency in drones
- 3.5 - Drone lights and color indication
 - * Short videos about components and GPS

Module 4 Conditions of Flying

- 4.1 - Pre-flight, in-flight and post-flight checklist
- 4.2 - Basic flying procedures (environment awareness and VLOS)
- 4.3 - How to set drone configuration (basic) in remote before flight (GPS calibration, RTH, Indicators)
 - * Short videos of DJI Mavic settings with Q&A session

Module 5 Introduction to Air Authorities

- 5.1 - Introduction to ICAO, CAAM and other authorities involved
- 5.2 - Basic regulation, prohibition and restricted areas to operate drones
 - * Short videos of different kinds of drones used in daily life

Activities

3

Activity 1 Online Quiz

Questions based on lecture with 75/100 passing mark.

Activity 2 Drone Simulator Training (Intermediate)

20 minutes per student in groups of 10.

Activity 3 Real Time Flight (Practical) Training

Participants will fly real drones in a series.

