

| | 5-Day Operator Course | | 2-Day Executive Training | 2-Day VO Training |
|---|-----------------------|--------|--------------------------|-------------------|
| | CLASSROOM | ONLINE | EXECUTIVE | VO |
| 0.1 INTRODUCTION | | | | |
| About Avion Solutions | X | X | X | X |
| Purpose of the course | X | X | X | X |
| Learning objectives | X | X | X | X |
| Course outline and schedule | X | X | X | X |
| Current events & public perception | X | X | X | X |
| Current and future regulation outline | X | X | X | X |
| Safety issues | X | X | X | X |
| Proactive measures | X | X | X | X |
| 1.0 AIRSPACE | | | | |
| Terms | | X | X | |
| Classification | | X | | |
| Classes of airspace | | X | Airspace Overview | |
| Class G airspace | | X | | X |
| Aeronautical charts | | X | | |
| Special use airspace | | X | | |
| Safe altitudes | | X | X | X |
| Restrictions | | X | X | X |
| Federal | | X | X | |
| Local | | X | | |
| Letters of Agreement | | X | X | |
| Physical restrictions using geofencing | | X | | |
| NOTAMS & TFRs | | X | X | X |
| Future airspace management concepts | | X | X | |
| References | | X | X | X |
| QUIZ | | X | | X |
| REVIEW | X | X | X | X |
| 2.0 AERODYNAMICS | | | | |
| Forces acting on an aircraft | | X | Aerodynamics Overview | |
| Pitch, roll, yaw | | X | | |
| Airfoil anatomy & airflow | | X | | |
| Differences in aircraft types | | X | X | |
| Multicopter aerodynamics | | X | X | |
| In-ground effect, Out-of-ground effect | | X | | X |
| Terminology | | X | X | X |
| Settling with power / Vortex ring state | | X | | X |
| Dynamic rollover | | X | | X |
| Flight modes (GPS/ATTI/Function) | | X | X | X |
| QUIZ | | X | | X |
| REVIEW | X | X | X | X |
| 3.0 WEATHER | | | | |
| Weather terms | | X | Weather Overview | X |
| Atmospheric conditions | | X | | |
| Ceiling & visibility | | X | X | X |
| Airspace weather – VFR minimums | | X | X | |
| Rain & temperature | | X | | |
| Wind - Speed, direction, urban effects | X | X | | X |
| Wind - Visual cues, & best practices | X | X | | X |
| Other factors to consider | | X | X | |
| Weather briefings | | X | X | X |
| QUIZ | | X | | X |
| REVIEW | X | X | | X |
| 4.0 FLIGHT SAFETY | | | | |
| OVERVIEW | | X | X | |
| UAS flight challenges | X | | | X |

| | | | | | |
|--|------------------|---------------|--|------------------|-----------|
| Terrain flight hazards | X | | | | X |
| VFR Sectionals | X | | | | |
| Hazards map | X | | | X | |
| Collision avoidance | X | | | | X |
| QUIZ | X | | | | X |
| REVIEW | X | | | | X |
| 5.0 UAS ANATOMY | CLASSROOM | ONLINE | | EXECUTIVE | VO |
| UAS types & roles | X | X | | X | X |
| Major components | X | X | | | X |
| Airframe | X | X | | | X |
| Power | X | X | | | |
| Payload | X | X | | X | X |
| Stabilization | X | X | | | |
| Sensors | X | X | | | X |
| Control systems | X | X | | | |
| QUIZ | X | X | | | X |
| REVIEW | X | X | | | X |
| 5.1 UAS ANATOMY II (Eagle XF Specific) | CLASSROOM | ONLINE | | EXECUTIVE | VO |
| Overview | X | | | X | X |
| Airframe | X | | | | X |
| Components | X | | | | X |
| Power | X | | | | |
| Ground Control Station | X | | | | |
| Payload | X | | | | |
| Payload Control | X | | | | |
| MEP configuration (mission Equipment Packages) | X | | | | X |
| Standard Flight Procedures | | | | | |
| Emergency Flight Procedures | | | | | |
| QUIZ | X | | | | X |
| REVIEW | X | X | | | X |
| 5.2 UAS MAINTENANCE | CLASSROOM | ONLINE | | EXECUTIVE | VO |
| Airworthiness | X | | | | |
| Preventive maintenance | X | | | | X |
| Maintenance log | X | | | | |
| Test flights & function checks | X | | | | X |
| Support equipment | X | | | | X |
| Batteries | X | | | | X |
| Compass & GPS | X | | | | X |
| New system integration | X | | | X | |
| Maintenance safety tips | X | | | | X |
| Maintenance Management | | | | X | |
| QUIZ | X | | | | X |
| REVIEW | X | X | | | X |
| 6.0 FIRST FLIGHT BASICS | CLASSROOM | ONLINE | | EXECUTIVE | VO |
| Checklists | X | | | Overview | X |
| Practical Exercise - Checklist Development | X | | | | X |
| Preflight | X | | | X | X |
| DJI Inspire 1 travel mode | X | | | | X |
| Compass calibration | X | | | | X |
| Pre-launch | X | | | X | X |
| Launch | X | | | X | X |
| Post-launch | X | | | X | X |
| Flight modes | X | | | X | X |
| DJI Inspire 1 Vision Positioning System (VPS) | X | | | X | X |
| Indoor Flight | X | | | | X |
| Distance & depth perception | X | | | X | X |
| Recovery | X | | | X | X |

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|-----------------------------------|------------------|---------------|------------------|--|-----------|
| Common mistakes | X | | X | | X |
| QUIZ | X | | | | X |
| REVIEW | X | X | X | | X |
| 7.0 SOFTWARE | CLASSROOM | ONLINE | EXECUTIVE | | VO |
| OVERVIEW | | X | X | | |
| GUI | X | | X | | X |
| Home Screen & User Center | X | | | | X |
| Flight Record | X | | | | |
| Academy | X | | | | |
| Camera Screen | X | | X | | X |
| Main Controller Settings | X | | | | X |
| RC Settings | X | | | | X |
| Image Transmission Setting screen | X | | | | X |
| Aircraft Battery screen | X | | | | X |
| Gimbal parameters | X | | | | X |
| General Settings screen | X | | | | X |
| ISO, camera, & video settings | X | | | | X |
| Map Screen | X | | X | | X |
| Flight guide | X | | | | X |
| Focus, Compass, Layer options | X | | | | X |
| Advanced features | X | | | | |
| Other software | X | | | | |
| LIVE DEMO | X | | | | X |
| QUIZ | X | | | | X |
| REVIEW | X | | | | X |
| 8.0 AIRCRAFT SAFETY | CLASSROOM | ONLINE | EXECUTIVE | | VO |
| OVERVIEW | | X | X | | |
| Built-in safety features | X | | | | X |
| Safety add-ons | X | | | | X |
| Protective equipment | X | | | | X |
| Aircraft control | X | | | | X |
| Orientation & navigation | X | | | | X |
| Safe training practices | X | | X | | X |
| QUIZ | X | | | | X |
| REVIEW | X | | | | X |
| 8.1 EMERGENCY PROCEDURES | CLASSROOM | ONLINE | EXECUTIVE | | VO |
| OVERVIEW | | X | X | | |
| return-to-home (RTH) | X | | X | | X |
| Low battery | X | | | | X |
| Loss of orientation | X | | X | | X |
| Video signal failure | X | | | | X |
| Software application failure | X | | | | X |
| Manned aircraft in operating area | X | | | | X |
| Loss of GPS signal | X | | | | X |
| Command link failure | X | | | | X |
| Settling with power | X | | | | X |
| Ditching | X | | | | X |
| Aircraft fly-away | X | | | | X |
| QUIZ | X | | | | X |
| REVIEW | X | | | | X |
| 9.0 VISUAL OBSERVER | CLASSROOM | ONLINE | EXECUTIVE | | VO |
| Definition | X | X | | | X |
| Requirements | X | X | X | | X |
| Qualification | X | X | X | | X |
| Duties | X | X | X | | X |
| Training | X | X | | | X |
| QUIZ | X | X | | | X |

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|--|------------------|---------------|--|------------------|-----------|
| REVIEW | X | X | | | X |
| 10.0 OPERATIONS | CLASSROOM | ONLINE | | EXECUTIVE | VO |
| OVERVIEW | | X | | X | |
| Organizational structure | X | | | X | X |
| Standard Operating Procedures (SOP) | X | | | X | X |
| Air operations management | X | | | X | |
| Administrative responsibilities | X | | | X | |
| Operations workflow | X | | | X | |
| Standardization & training | X | | | | |
| Mission planning; Mission briefs | X | | | | X |
| Risk assessment | X | | | X | X |
| Mission planning software | X | | | X | |
| Debriefing | X | | | | X |
| Data management | X | | | X | |
| QUIZ | X | | | | |
| REVIEW | X | | | X | |
| 11.0 JOB SCENARIOS | CLASSROOM | ONLINE | | EXECUTIVE | VO |
| Overview | X | | | Overview | X |
| Slide Show | X | | | | |
| Panoramic | X | | | | |
| Nadir | X | | | | |
| Progression | X | | | | |
| Point-of-Interest Video | X | | | | |
| Dual Controls | X | | | | X |
| Aerial Video | X | | | | X |
| Asset Inspection | X | | | | X |
| REVIEW | X | | | | |
| 12.0 OPERATIONAL SAFETY | CLASSROOM | ONLINE | | EXECUTIVE | VO |
| OVERVIEW | | X | | X | |
| Human factors | X | | | | X |
| Stressors to flight | X | | | | X |
| Communication barriers & techniques | X | | | | X |
| Distractions | X | | | | X |
| Situational awareness | X | | | | X |
| Crew coordination | X | | | | X |
| Preventive measures | X | | | X | X |
| Managing risk | X | | | X | X |
| QUIZ | X | | | | X |
| REVIEW | X | | | | X |
| 13.0 REGULATIONS | CLASSROOM | ONLINE | | EXECUTIVE | VO |
| OVERVIEW | | X | | X | X |
| UAS legal history | X | | | | |
| Regulatory & legislative issues; Enforcement | X | | | X | |
| Hobbyists, the AMA, and UAS registration | X | | | | |
| Current Regulatory Compliance | | | | X | X (VO) |
| Section 333 Exemption | X | | | X | |
| Certificate of Authorization (COA) | X | | | | |
| The FAA vs. State & local UAS laws | X | | | | |
| Proposed regulations – future requirements | X | | | | |
| QUIZ | X | | | | |
| REVIEW | X | | | | |
| 14.0 ETHICS/PRIVACY | CLASSROOM | ONLINE | | EXECUTIVE | VO |
| Current Regulations & Guidance | | X | | | |
| Privacy Advocates | | X | | | |
| Recommended Best Practices | | X | | | |
| Data Management Again | | X | | X | |

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|--|--------------------------------|---------------|--|------------------|-----------|
| QUIZ | | X | | | |
| REVIEW | X | X | | X | X |
| 15.0 PUBLIC SAFETY | CLASSROOM | ONLINE | | EXECUTIVE | VO |
| OVERVIEW | | X | | X | |
| Notifications | X | | | | X |
| Ditching | X | | | | X |
| Safe Altitudes and Distances | X | | | | X |
| Distractions Again | X | | | | X |
| Insurance | X | | | | X |
| QUIZ | X | | | | X |
| REVIEW | X | | | | X |
| FLIGHT 1.0 - BASIC MANEUVERS | INDOOR | | | EXECUTIVE | VO |
| Demonstrate preflight & launch | X | | | X | X |
| ATTI Mode Flight | X | | | | |
| Basic Maneuvers | X | | | X | X |
| Demo/Perform auto takeoff & land | X | | | | X |
| Demo/Perform manual takeoff / landing | X | | | | X |
| Demo/Perform Lateral Movement | X | | | | X |
| Straight Lanes | X | | | | X |
| Basic Boxes | X | | | | X |
| Lanes | X | | | | X |
| Landing Pads | X | | | | X |
| Depth Perception | X | | | | X |
| Demo/Perform landing & shutdown | X | | | X | X |
| FLIGHT 2.0 - ADVANCED MANEUVERS | OUTDOOR | | | EXECUTIVE | VO |
| Perform preflight & launch | X | | | | X |
| Identify major flight indications on display | X | | | | X |
| Orientation Flying | X | | | X | X |
| Boxes | X | | | X | X |
| Nose-out | X | | | X | X |
| Nose-in | X | | | X | X |
| Circle Facing In – POI Training | X | | | X | X |
| Figure Eights | X | | | X | X |
| Ascending & Descending | X | | | X | X |
| DJI Inspire 1 Flight Modes | X | | | | |
| Demonstrate use of map | X | | | X | X |
| Demonstrate use of basic imagery tools | X | | | X | X |
| Perform landing & shutdown | X | | | | X |
| FLIGHT 3.0 - EMERGENCY PROCEDURES | OUTDOOR | | | EXECUTIVE | VO |
| return-to-home (RTH) | X | | | X | X |
| Low battery | X | | | X | X |
| Loss of orientation | X | | | X | X |
| Video signal failure | X | | | | X |
| Software application failure | X | | | | |
| Manned aircraft in operating area | X | | | | X |
| Loss of GPS signal | X | | | | X |
| Command link failure | X | | | | |
| Settling with power | X | | | | |
| Ditching | X | | | | X |
| Aircraft fly-away | X | | | | X |
| FLIGHT 4.0 - SCENARIOS | OUTDOOR - SITE-SPECIFIC | | | EXECUTIVE | VO |
| Aerial Video | X | | | | |
| Asset Inspection | X | | | X | X |
| Camera Control Techniques | X | | | | |
| Dual Operator | X | | | X | X |
| Crew Coordination | X | | | | |