

A VM349 Unmanned Aircraft Practical Application

Level: 3

Credit Units: 5 Credit Units

Language: ENGLISH

Presentation Pattern: EVERY REGULAR SEMESTER

Synopsis:

This module links theory to practical applications and focuses on developing flight handling skills. Students will gain an understanding of the various factors that affect flight characteristics and gain insights into strategies for operating unmanned aircraft systems safely. Students will also be introduced to mission planning, advanced manoeuvres and handling emergency procedures while being cognizant to other relevant factors to the operation of Unmanned Aircraft. The practical components learnt will allow students to transfer their knowledge and skills to heavier categories of Unmanned Aircraft of the future as well as allow them to apply airworthiness considerations in the design and development for future Unmanned Aircraft.

Topics:

- Preflight and safety evaluation
- Take-off
- Effects of control
- Hovering
- Straight and level flight
- Climb and descent
- Mission Planning
- Advanced manoeuvres
- Emergency procedures
- Landing
- Post-flight check securing the UA
- UA maintenance and battery care

Learning Outcome:

- Plan for a flight in various scenarios.
- Develop a checklist to ensure the safe conduct of UA operations.
- Examine emergency recovery procedures at various phases of flight.
- Assemble the required components and documentations for prior to flight.
- Demonstrate the ability to perform the required flight manoeuvres.
- Test a mission based on required parameters.

Assessment Strategies - Regular Semester (Evening Class):

Components	Description	Weightage Allocation (%)
Overall Examinable Components	External Assessment	100

Total	100
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*The information listed is subject to review and change.