

## University of Pretoria Yearbook 2016

## Flight mechanics 780 (MLV 780)

**Qualification** Postgraduate

Faculty Faculty of Engineering, Built Environment and Information Technology

Module credits 16.00

**Programmes** BEngHons Mechanical Engineering

**BScHons Applied Science Applied Science: Mechanics** 

**Prerequisites** No prerequisites.

**Contact time** 21 contact hours per semester

**Language of tuition** English

Academic organisation Mechanical and Aeronautical En

**Period of presentation** Semester 1 or Semester 2

## **Module content**

Drag: friction, pressure, induced, interference, cooling, trim, drag estimation and reduction, piston engines, propellers, gas turbines, turbojet, turboprop and turbofan engines, propfan engines, aircraft performance, take off, climb, level flight, range, flight and manoeuvre envelopes, landing, energy methods, static stability and control: stick fixed, stick free, lateral stability and control, dihedral effect, coupling, dynamic longitudinal stability, short period oscillations, phugoid oscillations, dynamic damping, flight characteristics.

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