

## University of Pretoria Yearbook 2020

## Aeroelasticity 780 (MAE 780)

**Qualification** Postgraduate

**Faculty** Faculty of Engineering, Built Environment and Information Technology

Module credits 16.00

**Prerequisites** No prerequisites.

**Contact time** 21 contact hours per semester

**Language of tuition** Module is presented in English

**Department** Mechanical and Aeronautical Engineering

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

## Module content

Lagrange's equation, Rayleigh-Ritz method, Modal basis analysis, Structural Dynamics, Steady and unsteady aerodynamics, Panel methods, Static and dynamic aeroelasticity, Laplace transform, Convolution, Solution of the aeroelastic equation of motion.

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