University of Pretoria Yearbook 2022

Aeroelasticity 780 (MAE 780)

Qualification	Postgraduate
Faculty	Faculty of Engineering, Built Environment and Information Technology
Module credits	16.00
NQF Level	08
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.