University of Pretoria Yearbook 2016

Aircraft turbomachinery 780 (MAY 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

History of the gas turbine, cycles and engine design, gas turbine cycles types, military and civil engines, advanced cycles, review 2D design, 3D design of turbomachines, wind turbine design, secondary flows, loss mechanisms, loss mitigation methods, cooling/heat transfer, cascades, rotating machines, intrusive and un-intrusive techniques, full scale testing, standards.