

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 unintrusive techniques, full scale testing, standards.

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