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# University of Pretoria Yearbook 2016

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## Aerodynamics 780 (MLD 780)

<b>Qualification</b>	Postgraduate
<b>Faculty</b>	<a href="#">Faculty of Engineering, Built Environment and Information Technology</a>
<b>Module credits</b>	16.00
<b>Programmes</b>	<a href="#">BEngHons Mechanical Engineering</a> <a href="#">BScHons Applied Science Applied Science: Mechanics</a>
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	21 contact hours per semester
<b>Language of tuition</b>	English
<b>Academic organisation</b>	Mechanical and Aeronautical En
<b>Period of presentation</b>	Semester 1 or Semester 2

### Module content

Panel methods, Green's identity, different 2-D panel methods, airfoil design and analysis, 3-D vortex systems, vortex lattice methods for 3-D potential flow, boundary layer methods, theory of boundary layers, some finite difference methods, separation, computer methods, compressible potential flow, Mach waves and shock waves, Prandtl Glauert equations, subsonic, supersonic and transonic flow on thin airfoils, finite difference methods applied to small perturbation equation.

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