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# University of Pretoria Yearbook 2016

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## BScHons Applied Science Applied Science: Mechanics (12243021)

**Duration of study** 1 year

**Total credits** 128

### Programme information

The BScHons (Applied Science) degree is conferred by the following academic departments:

- Chemical Engineering
- Civil Engineering
- Industrial and Systems Engineering
- Materials Science and Metallurgical Engineering
- Mechanical and Aeronautical Engineering
- Mining Engineering

Any specific module is offered on the condition that a minimum number of students are registered for the module, as determined by the head of department and the Dean. Students must consult the relevant head of department in order to compile a meaningful programme, as well as on the syllabi of the modules. The relevant departmental postgraduate brochures must also be consulted.

### Admission requirements

An appropriate bachelor's degree, a BTech degree or equivalent qualification.

## Curriculum: Final year

**Minimum credits: 128**

### Core modules

Aircraft turbomachinery 780 (MAY 780) - Credits: 16.00  
Control Systems 780 (MBB 780) - Credits: 16.00  
Finite element methods 780 (MEE 780) - Credits: 16.00  
Advanced finite element methods 781 (MEE 781) - Credits: 16.00  
Condition-based maintenance 780 (MIC 780) - Credits: 16.00  
Maintenance practice 780 (MIP 780) - Credits: 16.00  
Reliability engineering 781 (MIR 781) - Credits: 16.00  
Aerodynamics 780 (MLD 780) - Credits: 16.00  
Air conditioning and refrigeration 780 (MLR 780) - Credits: 16.00  
Aeronautical structures 780 (MLT 780) - Credits: 16.00  
Flight mechanics 780 (MLV 780) - Credits: 16.00  
Optimum design 780 (MOO 780) - Credits: 16.00  
Fracture mechanics 780 (MSF 780) - Credits: 16.00  
Numerical thermoflow 780 (MSM 780) - Credits: 16.00  
Numerical thermoflow 781 (MSM 781) - Credits: 16.00  
Independent study 781 (MSS 781) - Credits: 16.00  
Independent study 782 (MSS 782) - Credits: 16.00  
Fatigue 780 (MSV 780) - Credits: 16.00  
Fluid mechanics 780 (MSX 780) - Credits: 16.00  
Structural mechanics 732 (MSY 732) - Credits: 32.00  
Vehicle dynamics 780 (MVI 780) - Credits: 16.00  
Numerical methods 780 (MWN 780) - Credits: 16.00  
Advanced heat and mass transfer 780 (MHM 780) - Credits: 16.00  
Advanced fluid mechanics 781 (MSX 781) - Credits: 16.00  
Advanced thermodynamics and energy systems 781 (MTX 781) - Credits: 16.00  
Specialised structural mechanics 781 (MSY 781) - Credits: 16.00  
Specialised thermoflow 780 (MTV 780) - Credits: 16.00  
Vibration-based condition monitoring 781 (MEV 781) - Credits: 16.00  
Specialised design 781 (MOX 781) - Credits: 16.00  
Specialised design 782 (MOX 782) - Credits: 16.00  
Fluid-structure interaction 780 (MAH 780) - Credits: 16.00  
Mechatronics 780 (MEG 780) - Credits: 16.00  
Fossil fuel power stations 781 (MUU 781) - Credits: 16.00  
Maintenance logistics 782 (MIP 782) - Credits: 16.00  
Non-destructive testing 780 (MCT 780) - Credits: 16.00

The information published here is subject to change and may be amended after the publication of this information. The [General Regulations \(G Regulations\)](#) apply to all faculties of the University of Pretoria. It is expected of students to familiarise themselves well with these regulations as well as with the information contained in the [General Rules](#) section. Ignorance concerning these regulations and rules will not be accepted as an excuse for any transgression.