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# University of Pretoria Yearbook 2018

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## BEngHons Mechanical Engineering (12240052)

**Minimum duration of study** 1 year

**Total credits** 128

### Programme information

Also consult the General Regulations G.16 to G.29.

The curriculum is determined in consultation with the relevant heads of departments. A student is required to pass modules to the value of at least 128 credits.

The degree is awarded on the basis of examinations only.

### Admission requirements

Subject to the stipulations of Reg. G.1.3 and G.54, a BEng degree or equivalent qualification is required for admission.

### Other programme-specific information

All students must complete the module MSS 732 Research study 732 listed below.

A limited number of appropriate modules from other departments are allowed. Not all modules listed are presented each year. Please consult the departmental post-grad brochure.

### Examinations and pass requirements

- i. The examination in each module for which a student is registered, takes place during the normal examination period after the conclusion of lectures (i.e. October/November or May/June).
- ii. A student registered for the honours degree must complete his or her studies within two years (full-time), or within three years (part-time) after first registration for the degree: Provided that the Dean, on recommendation of the relevant head of department, may approve a stipulated limited extension of this period.
- iii. A student must obtain at least 50% in an examination for each module where no semester or year mark is required. A module may only be repeated once.
- iv. In modules where semester or year marks are awarded, a minimum examination mark of 40% and a final mark of 50% is required.
- v. No supplementary or special examinations are granted at postgraduate level.



## Pass with distinction

A student passes with distinction if he or she obtains a weighted average of at least 75% in the first 128 credits for which he or she has registered (excluding modules which were discontinued timeously). The degree is not awarded with distinction if a student fails any one module (excluding modules which were discontinued timeously).



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## Curriculum: Final year

**Minimum credits: 128**

MSS 732 compulsory module / verpligte module

### Core modules

Aircraft propulsion 780 (MAY 780) - Credits: 16.00  
Control Systems 780 (MBB 780) - Credits: 16.00  
Non-destructive testing 780 (MCT 780) - Credits: 16.00  
Advanced finite element methods 781 (MEE 781) - Credits: 16.00  
Mechatronics 780 (MEG 780) - Credits: 16.00  
Vibration-based condition monitoring 781 (MEV 781) - Credits: 16.00  
Advanced heat and mass transfer 780 (MHM 780) - Credits: 16.00  
Condition-based maintenance 780 (MIC 780) - Credits: 16.00  
Maintenance practice 780 (MIP 780) - Credits: 16.00  
Maintenance logistics 782 (MIP 782) - Credits: 16.00  
Reliability engineering 781 (MIR 781) - Credits: 16.00  
Aerodynamics 780 (MLD 780) - Credits: 16.00  
Missile aerodynamics and design 781 (MLD 781) - Credits: 16.00  
Experimental methods 782 (MLD 782) - Credits: 16.00  
Unmanned aircraft systems technology 783 (MLD 783) - Credits: 16.00  
Avionics 784 (MLD 784) - Credits: 16.00  
Air conditioning and refrigeration 780 (MLR 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  
Research study 732 (MSS 732) - Credits: 32.00  
Fatigue 780 (MSV 780) - Credits: 16.00  
Fluid mechanics 780 (MSX 780) - Credits: 16.00  
Advanced fluid mechanics 781 (MSX 781) - Credits: 16.00  
Advanced thermodynamics and energy systems 781 (MTX 781) - Credits: 16.00  
Reactor coolant flow and heat transfer 782 (MUA 782) - Credits: 16.00  
Reactor engineering science 783 (MUA 783) - Credits: 16.00  
Reactor physics 784 (MUA 784) - Credits: 16.00  
Reactor materials engineering 785 (MUA 785) - Credits: 16.00  
Reactor materials engineering 786 (MUA 786) - Credits: 16.00  
Fossil fuel power stations 781 (MUU 781) - Credits: 16.00  
Vehicle dynamics 780 (MVI 780) - Credits: 16.00  
Numerical methods 780 (MWN 780) - Credits: 16.00

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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.