

University of Pretoria Yearbook 2016

BEngHons Mechanical Engineering (12240051)

Duration of study 1 year

Total credits 128

Programme information

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

A limited number of appropriate modules from other departments are allowed.

Not all modules listed are presented each year. Please consult the departmental postgraduate brochure.

Examinations and pass requirements

- 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. November/January or June/July).
- 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.
- 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.
- In modules where semester or year marks are awarded, a minimum examination mark of 40% and a final mark of 50% is required.
- 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).



Curriculum: Final year

Minimum credits: 128

Elective 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
Vehicle dynamics 780 (MVI 780) - Credits: 16.00
Numerical methods 780 (MWN 780) - Credits: 16.00
Research methodology 780 (MWX 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
Experimental structural dynamics 783 (MSY 783) - 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.