

# University of Pretoria Yearbook 2025

## BScHons in Applied Science specialising in Metallurgy option Welding Technology (12243058)

**Department** Materials Science and Metallurgical Engineering

**Minimum duration of study** 1 year

**Total credits** 128

**NQF level** 08

### Programme information

The successful completion of NFM 701 Basic Physical Metallurgy 701 through Enterprises at UP is compulsory for students with a first degree of BTech or BSc.

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 relevant 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

1. Three-year Bachelor of Science (or equivalent) degree (in Natural Sciences) with a cumulative weighted average of at least 60% for the degree  
or  
relevant BTech qualification excluding the National Diploma; i.e. one offered by a department of materials science at a university of technology in South Africa, with a cumulative weighted average of at least 75% for the degree  
and  
no modules failed in the BTech degree  
or  
a relevant Advanced Diploma qualification (NQF Level 7), excluding the National Diploma; i.e. one offered by a department of materials science and metallurgical engineering at a university of

- technology in South Africa, with a cumulative weighted average of at least 70% for the diploma and  
no modules failed in the Advanced Diploma  
or  
a four-year engineering-based university degree not recognised by ECSA for registration as a professional engineer  
or  
Bachelor of Engineering degree awarded by the University of Pretoria  
or  
relevant four-year bachelor's degree in engineering that the Engineering Council of South Africa (ECSA) regards as acceptable for registration as a candidate engineer and for eventual registration as a professional engineer
2. Comprehensive intellectual CV
  3. An entrance examination may be required

## Examinations and pass requirements

Refer also to G18 and G26.

- 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. G18(1) applies with the understanding that under exceptional circumstances an extension of a maximum of three years may be approved: 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% (not rounded) 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). The degree must be completed within the prescribed study period.

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## Curriculum: Final year

**Minimum credits: 128**

### Core modules

[Fabrication engineering 700](#) (NFE 700) - Credits: 24.00

[Research project 700](#) (NLO 700) - Credits: 32.00

[Welding metallurgy 700](#) (NSW 700) - Credits: 24.00

[Welding processes 700](#) (NWP 700) - Credits: 24.00

[Design of welded structures 701](#) (NWP 701) - Credits: 24.00

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### General Academic Regulations and Student Rules

The [General Academic Regulations \(G Regulations\)](#) and [General Student Rules](#) apply to all faculties and registered students of the University, as well as all prospective students who have accepted an offer of a place at the University of Pretoria. On registering for a programme, the student bears the responsibility of ensuring that they familiarise themselves with the General Academic Regulations applicable to their registration, as well as the relevant faculty-specific and programme-specific regulations and information as stipulated in the relevant yearbook. Ignorance concerning these regulations will not be accepted as an excuse for any transgression, or basis for an exception to any of the aforementioned regulations. The G Regulations are updated annually and may be amended after the publication of this information.

### Regulations, degree requirements and information

The faculty regulations, information on and requirements for the degrees published here are subject to change and may be amended after the publication of this information.

### University of Pretoria Programme Qualification Mix (PQM) verification project

The higher education sector has undergone an extensive alignment to the Higher Education Qualification Sub-Framework (HEQSF) across all institutions in South Africa. In order to comply with the HEQSF, all institutions are legally required to participate in a national initiative led by regulatory bodies such as the Department of Higher Education and Training (DHET), the Council on Higher Education (CHE), and the South African Qualifications Authority (SAQA). The University of Pretoria is presently engaged in an ongoing effort to align its qualifications and programmes with the HEQSF criteria. Current and prospective students should take note that changes to UP qualification and programme names, may occur as a result of the HEQSF initiative. Students are advised to contact their faculties if they have any questions.