

# University of Pretoria Yearbook 2024

## BEngHons *Electronic Engineering* (12240092)

**Department** Electrical, Electronic and Computer Engineering

**Minimum duration of study** 1 year

**Total credits** 128

**NQF level** 08

### Programme information

Refer also to G16-G29.

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

1. BEng degree awarded by the University of Pretoria **or** equivalent degree **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. An entrance examination may be required
3. Comprehensive intellectual CV

### Other programme-specific information

Students may take modules to the value of 32 credits from other fields of specialisation or from other departments, with approval of the Coordinator: Postgraduate Studies.

### 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.

## Curriculum: Final year

**Minimum credits: 128**

### Additional 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.
- **EIN 732** is a compulsory module.
- With permission from the department EIN 732 may be substituted with **EPT 732** OR **EPT 733**.

### Core modules

Intelligent systems 732 (EAI 732) - Credits: 32.00  
Advanced topics in intelligent systems 733 (EAI 733) - Credits: 32.00  
Biosignals and systems 732 (EBB 732) - Credits: 32.00  
Bioelectricity and electronics 732 (EBE 732) - Credits: 32.00  
Computational anatomy and physiology 732 (EBI 732) - Credits: 32.00  
Optimal control 780 (EBO 780) - Credits: 32.00  
Energy management 732 (EES 732) - Credits: 32.00  
Introduction to research 732 (EIN 732) - Credits: 32.00  
Wireless sensor networks 732 (EKS 732) - Credits: 32.00  
Electronic defence - electronic countermeasures 780 (ELB 780) - Credits: 32.00  
Electronic defence - electronic support 781 (ELB 781) - Credits: 32.00  
Antenna theory 780 (EMA 780) - Credits: 32.00  
Multivariable control systems 732 (EMB 732) - Credits: 32.00  
Analogue electronic design 732 (EME 732) - Credits: 32.00  
Wireless electronics 732 (EMK 732) - Credits: 32.00  
Microwave theory 780 (EMM 780) - Credits: 32.00  
Energy optimisation 732 (ENO 732) - Credits: 32.00  
Research project: Theory 732 (EPT 732) - Credits: 32.00  
Research project: Design and laboratory 733 (EPT 733) - Credits: 32.00  
Digital communications 732 (ETD 732) - Credits: 32.00  
Telecommunication systems engineering 732 (ETT 732) - Credits: 32.00

### 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.