

# University of Pretoria Yearbook 2023

## Numerical methods 263 (WTW 263)

<b>Qualification</b>	Undergraduate
<b>Faculty</b>	Faculty of Natural and Agricultural Sciences
<b>Module credits</b>	8.00
<b>NQF Level</b>	06
<b>Programmes</b>	BEng (Chemical Engineering)
	BEng (Chemical Engineering) ENGAGE
	BEng (Civil Engineering)
	BEng (Civil Engineering) ENGAGE
	BEng (Computer Engineering)
	BEng (Computer Engineering) ENGAGE
	BEng (Electrical Engineering)
	BEng (Electrical Engineering) ENGAGE
	BEng (Electronic Engineering)
	BEng (Electronic Engineering) ENGAGE
	BEng (Industrial Engineering)
	BEng (Industrial Engineering) ENGAGE
	BEng (Mechanical Engineering)
	BEng (Mechanical Engineering) ENGAGE
	BEng (Metallurgical Engineering)
	BEng (Metallurgical Engineering) ENGAGE
	BEng (Mining Engineering)
	BEng (Mining Engineering) ENGAGE
	BSc (Physics)
<b>Service modules</b>	Faculty of Engineering, Built Environment and Information Technology
<b>Prerequisites</b>	WTW 164
<b>Contact time</b>	1 tutorial per week, 2 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Department</b>	Mathematics and Applied Mathematics

---

**Period of presentation** Semester 2

**Module content**

Numerical integration. Numerical methods to approximate the solution of non-linear equations, systems of equations (linear and non-linear), differential equations and systems of differential equations. Direct methods to solve linear systems of equations.

---

**Regulations and rules**

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

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.

**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 (HEQF) 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.