

# University of Pretoria Yearbook 2025

# Complex analysis 320 (WTW 320)

| Qualification          | Undergraduate                                    |
|------------------------|--|
| Faculty                | Faculty of Natural and Agricultural Sciences     |
| Module credits         | 18.00  |
| NQF Level              | 07   |
| Programmes             | BCom specialising in Statistics and Data Science |
|                        | BSc in Actuarial and Financial Mathematics       |
|                        | BSc in Applied Mathematics                       |
|                        | BSc in Chemistry                                 |
|                        | BSc in Chemistry 4-year programme                |
|                        | BSc in Mathematical Statistics                   |
|                        | BSc in Mathematics                               |
|                        | BSc in Mathematics 4-year programme              |
|                        | BSc in Physics                                   |
|                        | BSc in Physics 4-year programme                  |
| Service modules        | Faculty of Education                             |
| Prerequisites          | WTW 218 and WTW 220                              |
| Contact time           | 1 tutorial per week, 2 lectures per week         |
| Language of tuition    | Module is presented in English                   |
| Department             | Mathematics and Applied Mathematics              |
| Period of presentation | Semester 2                                       |
|                        |  |

## **Module content**

Series of functions, power series and Taylor series. Complex functions, Cauchy- Riemann equations, Cauchy's theorem and integral formulas. Laurent series, residue theorem and calculation of real integrals using residues.

#### **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.