

University of Pretoria Yearbook 2020

Special functions and approximation theory 840 (WTW 840)

Qualification	Postgraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	0.00
Prerequisites	Complex Analysis at 3rd-year level; Advanced Calculus and Ordinary Differential equations (ODEs)
Contact time	1 lecture per week
Language of tuition	Module is presented in English
Department	Mathematics and Applied Mathematics
Period of presentation	Semester 1 or Semester 2

Module content

*Consult with the Head of the Department of Mathematics and Applied Mathematics about the availability of this master's module in a particular year.

The Gamma and Beta functions, the hypergeometric function, orthogonal polynomials and their properties, classical orthogonal polynomials such as Chebychev, Hermite, Laguerre, Ultraspherical and Jacobi polynomials, Padé approximation, applications of zeros of orthogonal polynomials to convergence of Padé approximants.

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.