

University of Pretoria Yearbook 2022

Interferometry 716 (EFR 716)

Qualification Postgraduate

Faculty [Faculty of Engineering, Built Environment and Information Technology](#)

Module credits 16.00

NQF Level 08

Prerequisites No prerequisites.

Contact time 16 contact hours per semester

Language of tuition Module is presented in English

Department Electrical, Electronic and Computer Engineering

Period of presentation Semester 1

Module content

Credits: 16 (must be combined with Introduction to the science of measurement to form a 32 credit module)

Theory: Michelson interferometer, Mach-Zehnder interferometer, Shack-Hartmann interferometer, Fabry-Perot interferometer, introduction to polarisation interferometry, introduction to interference microscopy, introduction to optical thin films.

Practical: alignment of optical flats, evaluation of optical surfaces, interpretation of interferograms obtained from a Fizeau interferometer, interpretation of Newton fringes, application of a wedge interferometer to determine the thickness of a thin film.

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