

University of Pretoria Yearbook 2019

Interferometry 716 (EFR 716)

| Qualification | Postgraduate |
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| Faculty | Faculty of Engineering, Built Environment and Information Technology |
| Module credits | 16.00 |
| Prerequisites | No prerequisites. |
| Contact time | 16 contact hours per semester |
| Language of tuition | Module is presented in English |
| Department | Electrical, Electronic and Computer Engineering |
| Devied of average tation | Competer 1 |

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 Fisba interferometer, interpretation of Newton fringes, application of a wedge interferometer to determine the thickness of a thin film.

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