

# University of Pretoria Yearbook 2021

## Quantum optics 712 (PHY 712)

<b>Qualification</b>	Postgraduate
<b>Faculty</b>	<a href="#">Faculty of Natural and Agricultural Sciences</a>
<b>Module credits</b>	10.00
<b>NQF Level</b>	08
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	4 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Department</b>	Physics
<b>Period of presentation</b>	Semester 1

### Module content

Coherent states of free and forced oscillators. Semi-classical electrodynamics (including time dependent perturbations and stimulated transitions). Mode composition of the electromagnetic field. Properties of laser light. Resonators and modes. Laser types (ruby, Nd-YAG, Carbondioxide, He-Ne, excimer and GaAs).

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