

## 2019 Series 3 Course C Brochure updated 16 July 2019

Title Aspects of Nanotechnology

Dates Wednesdays 28 August – 2 October 2019

Time 10 am – 12 noon

Venue Otago Golf Club, 125 Balmacewen Road, Dunedin

**Convenor** Barrie Peake

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**Developers** Barrie Peake & Ian Tucker

Course fee \$45

Nanoparticles are of the order of 10<sup>-9</sup> (1/1,000,000,000) m in size and in recent years have become increasingly recognised as having some unique chemical and physical characteristics. As they bridge the gap between bulk materials and single molecules, nanoparticles are already being used to create new products that improve many aspects of modern living. This course will describe the historical background to the study of these particles and then illustrate the many applications of the technology arising from their use.

All speakers for this course are experts in their fields and associated with the University of Otago.

All applications must be received by **Friday 2 August**, **2019**. You will receive a response to your application by **Monday 12 August**, **2019**.

Please contact the Programme Secretary <a href="mailto:courses@u3adunedin.org.nz">courses@u3adunedin.org.nz</a>, phone 467 2594 with any queries.

## **Aspects of Nanotechnology**

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28 August Historical development of nanoparticle science

-Barrie Peake

'Seeing' nanoparticles in your mouth

-Neil Waddell, Department of Oral Rehabilitation

4 September Treating your teeth with nanoparticles

-Carla Meledandri, Chemistry Department

Nanodrugs: Medicinal benefits from lack of size

-Eng Tan, Chemistry Department

11 September Illuminating nanotechnology – optics at the

nanoscale

-Richard Blaikie, Deputy Vice-Chancellor Research and

Enterprise

Surface coatings using nanotechnology –

inspiration from nature

-Sam Lowrey, Physics Department

18 September Vaccines as nanoparticles

-Sarah Hook, School of Pharmacy

Nanotechnology – friend or foe?

-Keith Gordon, Chemistry Department

25 September Plasmonics – a new frontier

-Jim McQuillan, Chemistry Department

Nanoparticles in food technology

-Dominic Agyei, Department of Food Science

2 October How toxic are nanoparticles?

-Jonathan Falconer, Chemistry Department

Using computational modelling in nanoscience

-Anna Garden, Chemistry Department