

# University of Pretoria Yearbook 2016

## Nuclear reactor materials 700 (NNR 700)

**Qualification** Postgraduate

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

**Module credits** 32.00

**Programmes** [BEngHons Metallurgical Engineering](#)

[BScHons Applied Science Applied Science: Metallurgy](#)

**Prerequisites** No prerequisites.

**Contact time** 10 lectures per week

**Language of tuition** English

**Academic organisation** Materials Science and Metallur

**Period of presentation** Year

### Module content

In this module the mechanical behaviour of metals and alloys at room and high temperature is addressed but with special emphasis on nuclear materials used in commercial power reactors. In particular these materials' behaviour under deformation, creep, fracture, fatigue and also corrosion in irradiation conditions for in-core materials as well as their behaviour under the unique environmental conditions for out-of-core materials is covered.

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