

University of Pretoria Yearbook 2018

Nuclear reactor materials 700 (NNR 700)

Qualification Postgraduate

Faculty Faculty of Engineering, Built Environment and Information Technology

Module credits 30.00

Prerequisites No prerequisites.

Contact time 10 lectures per week

Language of tuition Module is presented in English

Department Materials Science and Metallurgical Engineering

Period of presentation Semester 1 or Semester 2

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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