

## University of Pretoria Yearbook 2020

## Hydrometallurgy 700 (NHM 700)

**Qualification** Postgraduate

Faculty Faculty of Engineering, Built Environment and Information Technology

Module credits 30.00

**Programmes** BEngHons Metallurgical Engineering

**BScHons Applied Science Metallurgy** 

**Prerequisites** No prerequisites.

**Contact time** 48 contact hours per semester

**Language of tuition** Module is presented in English

**Department** Materials Science and Metallurgical Engineering

**Period of presentation** Semester 1 or Semester 2

## Module content

The aim with this course is to enable the students to understand the design and operation of hydrometallurgical processes for the beneficiation of minerals and metals. The theoretical basis of the solution chemistry underlying hydrometallurgical processes, the purification and concentration options available, and the metal recovery processes such as precipitation, hydrogen reduction, and electrowinning are reviewed. This is then followed by the consideration of the engineering aspects and the technical application of hydrometallurgical processes for a number of ores relevant to South Africa.

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