

## University of Pretoria Yearbook 2019

## Hydrometallurgy 322 (NHM 322)

**Qualification** Undergraduate

Faculty Faculty of Engineering, Built Environment and Information Technology

Module credits 16.00

**Programmes** BEng Metallurgical Engineering

BEng Metallurgical Engineering Engage

Prerequisites (NPT 220) and (NEC 310)

**Contact time** 3 lectures per week, 3 practicals per week

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

**Department** Materials Science and Metallurgical Engineering

Period of presentation Semester 2

## **Module content**

Merits of hydrometallurgy relative to other extraction methods. Unit processes in hydrometallurgy. Chemical principles of hydrometallurgy. Chemistry of important metals and lixiviants. Application of chemical principles to: leaching; purification and upgrading of leach solutions (precipitation, solvent extraction, ion exchange, activated carbon); product recovery from solution (precipitation, reduction). Relevant analytical methods.

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