

University of Pretoria Yearbook 2016

Electrometallurgy 700 (NEL 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 48 contact hours per semester

Language of tuition English

Academic organisation Materials Science and Metallur

Period of presentation Year

Module content

At the end of the module, students should be able to conceptualise and design new electrometallurgical processes and improve the operation of existing processes through an understanding of the basic principles of the thermodynamics and kinetics of electrochemistry, measurement techniques used in electrochemistry, and considering the principles of electrochemical reactor design, different electrode and cell configurations, role of additives to electrolytes, role of impurities in the electrowinning process, the steps involved in electrocrystallization processes and present practices used for the electrowinning of metals such as copper, nickel, cobalt, zinc, manganese and gold.

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