

University of Pretoria Yearbook 2017

Electrochemistry 310 (NEC 310)

Qualification Undergraduate

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

Module credits 16.00

Programmes [BEng Metallurgical Engineering](#)
[BEng Metallurgical Engineering ENGAGE](#)

Prerequisites No prerequisites.

Contact time 3 practicals per week, 3 lectures per week

Language of tuition Module is presented in English

Academic organisation Materials Science and Metallur

Period of presentation Semester 1

Module content

Kinetics and thermodynamics of electrochemical reactions of metallurgical importance. Use of equilibrium diagrams to identify possible reactions products. Use of polarisation diagrams to describe reaction kinetics. Application of these principles to metallurgical examples, including corrosion, leaching and electrometallurgy. Influence of substrate composition, electrolyte composition, impurities, reaction products and agitation on kinetics.

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