



University of Pretoria Yearbook 2018

Pyrometallurgy 321 (NPM 321)

Qualification Undergraduate

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

Module content Overview of pyrometallurgical process routes, types of reactions, and reactor designs. Review of relevant thermodynamic principles (equilibrium constants, Henrian and Raoultian activities and activity coefficients). Slag basicity and viscosity. Energy and reductants. Overview of pyrometallurgical separation principles (vapour-phase, solid-state and liquid-liquid routes). Examples of pyrometallurgical separation processes (ironmaking and steelmaking, sulphide smelting and converting, ferroalloys).

Module credits 16.00

Programmes [BEng Metallurgical Engineering](#)

[BEng Metallurgical Engineering ENGAGE](#)

Prerequisites NPT 220

Contact time 2 tutorials per week, 3 lectures per week

Language of tuition Module is presented in English

Department Materials Science and Metallurgical Engineering

Period of presentation Semester 2

The information published here is subject to change and may be amended after the publication of this information. The [General Regulations \(G Regulations\)](#) apply to all faculties of the University of Pretoria. It is expected of each student to familiarise himself or herself well with these regulations as well as with the information contained in the [General Rules](#) section. Ignorance concerning these regulations and rules will not be accepted as an excuse for any transgression.