University of Pretoria Yearbook 2020

Minerals processing 310 (NMP 310)

Qualification	Undergraduate
Faculty	Faculty of Engineering, Built Environment and Information Technology
Module credits	16.00
Programmes	BEng Metallurgical Engineering
	BEng Metallurgical Engineering ENGAGE
	BEng Mining Engineering
	BEng Mining Engineering ENGAGE
Prerequisites	No prerequisites.
Contact time	3 lectures per week, 4 practicals per week
Language of tuition	Module is presented in English
Department	Materials Science and Metallurgical Engineering
Period of presentation	Semester 1

Module content

Minerals processing in perspective (economic importance, economic nature of mineral deposits, mineral properties and analysis, mineral processing functions). Liberation analysis (importance and measurement of liberation; particle size analysis). Comminution (theories and principles, crushers, grinding mills). Screening and classification (industrial screening, cyclones). Concentration processes (gravity concentration, dense medium concentration). Froth flotation.