GEOL90031 Ore Reserve Estimation

Credit Points:	6.25
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2016, Parkville This subject commences in the following study period/s: March, Parkville - Taught on campus. This subject is taugt through the Victorian Institute of Earth and Planetary Sciences: https://vieps.earthsci.unimelb.edu.au/.
Time Commitment:	Contact Hours: 40 contact hours: 30 hours of classes, 10 hours online contact Total Time Commitment: 85 hours
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	Year 2/3 geology recommended plus a basic knowledge of statistics (mean, standard deviation, variance etc).
Non Allowed Subjects:	None
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry. It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: http://services.unimelb.edu.au/disability
Coordinator:	Assoc Prof Kevin Walsh
Contact:	kevin.walsh@unimelb.edu.au
Subject Overview:	This unit covers the identification of target minerals, its exploration, sampling methods, methods of estimating tonnage and grades and reporting of resources and reserves. This unit also covers the financial evaluation of mining projects.
Learning Outcomes:	# To understand and be able to identify the target mineral for exploration; # understand and be able to describe the principles and applications of geophysical and geochemical exploration techniques; # know the appropriate ways to sample various types of mineral deposits; be able to carry out an estimation of the grade and tonnage of a mineral deposit using classical and geostatistical methods; # be able to carry out a simple reconciliation of period production at an operating mine; # be able to carry out a financial evaluation of a mining project.
Assessment:	Risk analysis equivalent to 1250 words, due four weeks after the last day of the teaching period (50%) An assignment of a number of set questions, equivalent to 1250 words, due four weeks after the last day of the teaching period (50%).
Prescribed Texts:	Reading expected to be completed in the pre-teaching period.
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees

Generic Skills:	# Exercise critical judgement; # undertake rigorous and independent thinking; # adopt a problem-solving approach to new and unfamiliar tasks; # develop high-level written report and/or oral presentation skills; # interrogate, synthesise and interpret the published literature; # work as part of a team.
Related Course(s):	Master of Geoscience Master of Science (Earth Sciences)
Related Majors/Minors/ Specialisations:	Earth Sciences Honours Program - Earth Sciences