Categorizing student performance levels

GEOL 0011 Igneous Petrology

Excellent is the performance expected of students gaining a First class honours (MSci) or Distinction (MSc). Typical is the performance currently expected of students at the Lower/Upper Second class boundary (MSci) or 60% (MSc). Threshold is the minimum performance currently required to gain an honours degree (MSci) or masters degree (MSc).

Definitions	Excellent performance	Typical performance	Threshold performance
Intellectual skills -knowledge and understanding	Repeated ability to compare observations of minerals and textures with phase diagrams and theory from which to infer likely petrogenetic pathways for various igneous rock families. Connecting geochemistry, mineralogy and petrology together.	Reasonable understanding of the interrelation between geochemistry, mineralogy, micro-textures and cooling rate history for major suites of igneous rocks and minerals, in relation to tectonic setting and broad geochemical isotopic evolution.	Basic knowledge of criteria for characterisation of igneous rocks, and ability to assign formation models based on plate tectonic settings
Practical skills	Superior diagnostic capability to discriminate between closely similar rocks and minerals including systems where overprinting has occurred.	Comfortable familiarity with diagnostic criteria for discriminating between classes of igneous rocks and the accompanying changes in mineral compositions	Some ability to recognise different families of igneous rocks and knowledge of key rock - forming minerals and their sequence of crystallisation
Communication skills	High level of petrographic report writing and assignment completion with evidence interpreted from textbooks, SAQs and reading around the subject	Good level of petrographic report writing and assignment completion with evidence copied from supporting textbooks and lectures	Competent level of petrographic report writing and assignment completion.
Numeracy and C & IT skills	Demonstrate ability to use geochemical modelling, mineral compositions and phase diagrams to understand magma evolution, with understanding of errors	Good understanding of mass balance and rates of chemical change or modelling in proportion to evolution of magmas, including fractional crystallisation models	Basic vector and field xy and triangular plots of geochemical data for classifying igneous rocks and minerals.