

Categorizing student performance levels

GEOL0026 Earth & Planetary Materials

“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	Knowledge base extending beyond the directly taught programme (e.g. reference to key research papers).	Knowledge of the directly taught programme and some evidence of enquiry beyond that (e.g. key texts).	Knowledge based on the directly taught programme.
	Thorough understanding of crystal symmetry and its linkage to crystal structure and physical properties.	Understanding of crystal symmetry and its linkage to crystal structure and physical properties.	Basic understanding of symmetry and its linkage to crystal structure and physical properties.
	Thorough understanding of the application X-ray and neutron diffraction to the determination of crystal structures and thermoelastic properties.	Understanding of the application X-ray and neutron diffraction to the determination of crystal structures and thermoelastic properties.	Basic understanding of the application X-ray and neutron diffraction to the determination of crystal structures and thermoelastic properties.
	Thorough knowledge of current experimental techniques to measure X-ray and neutron diffraction patterns, including work at high P and high and low T.	Knowledge of current experimental techniques in X-ray and neutron diffraction, including work at high P and high/low T.	Basic knowledge of current experimental techniques in X-ray and neutron diffraction, including work at high P and high and low T.
Practical skills	Outstanding ability to measure and correctly interpret X-ray diffraction patterns from both powders and single crystals.	Ability to measure and interpret X-ray diffraction patterns from both powders and single crystals.	Basic ability measure and interpret X-ray diffraction patterns from both powders and single crystals.
Communication skills	Ability to write critically, efficiently and effectively.	Ability to write efficiently and effectively.	Ability to write effectively.
Numeracy and C & IT skills	Highly developed ability to calculate diffraction geometry and manipulate structure factor formulae	Ability to calculate diffraction geometry and manipulate structure factor formulae	Ability to calculate diffraction geometry and structure factors with guidance
	Highly developed ability to use spreadsheets or MatLab for, e.g., Fourier map calculations	Ability to use spreadsheets or MatLab for, e.g., Fourier map calculations	Ability to use spreadsheets for, e.g., Fourier map calculations with guidance