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