

AME 21216 – Tech Memo Score Sheet

A9 – 1st Order Transient Response

NDID#: _____

For more details on any of the items below, please refer to the lab handout.

Item and Description	Points Awarded	Possible Points
Technical writing and format – Please address all questions from the lab handout in the paragraphs and captions. You should have the relevant equations in your paragraphs!		5
Plot of measured transient temperature T vs. t for the response to an impulse (both heating and cooling on same plot)		4
Plot of oscillatory heater power q and transient temperature T vs. t both on the same plot (Use “yyaxis left” to plot heater power on the left. Use “yyaxis right” to plot temperature on the right.)		5
A table containing: • Measured air temperature T_{Air} • Measured maximum temperature T_{max} • Time constant τ • Non-dimensional parameter $\omega\tau$ for the oscillating heat source • Measured time lag Δt • Theoretical time lag Δt • Measured peak-to-peak amplitude of temperature oscillation • Theoretical peak-to-peak amplitude of temperature oscillation		8
TOTAL		22